

**A Thesis Submitted for the Degree of PhD at the University of Warwick**

**Permanent WRAP URL:**

<http://wrap.warwick.ac.uk/82187>

**Copyright and reuse:**

This thesis is made available online and is protected by original copyright.

Please scroll down to view the document itself.

Please refer to the repository record for this item for information to help you to cite it.

Our policy information is available from the repository home page.

For more information, please contact the WRAP Team at: [wrap@warwick.ac.uk](mailto:wrap@warwick.ac.uk)

# **The Politics of Branding: iRobot, Branding and Common Sense**

A thesis submitted in partial fulfilment of the requirements for the degree of Doctor of  
Philosophy

**Simona Pino**

March 2016

Department of Politics and International Studies

UNIVERSITY OF WARWICK

## **Table of Contents**

<i>List of Figures and Tables</i>	<i>vi</i>
<i>Acknowledgements</i>	<i>vii</i>
<i>Declaration</i>	<i>viii</i>
<i>Abstract</i>	<i>ix</i>
<i>List of Abbreviations</i>	<i>x</i>
<b><u>Introduction</u></b>	<b><i>1</i></b>
<i>Contribution</i>	<i>4</i>
<i>Research Question</i>	<i>5</i>
<i>Argument</i>	<i>5</i>
<i>Outline</i>	<i>7</i>
<b><u>Chapter 1 - One Brand, Two Robots: Why iRobot's Branding and Marketing is Worth Investigating</u></b>	<b><i>10</i></b>
1.1 Introducing iRobot	<i>12</i>
1.2. Civil-Military Relations and Civil Society: Why iRobot's Branding and Marketing Strategies are Controversial	<i>16</i>
1.3. iRobot within the American Military Industry and Contemporary Capitalism	<i>26</i>
<b><u>Chapter 2 - Literature Review</u></b>	<b><i>34</i></b>
2.1. Mapping the Literature on Brands: Conventional vs. Critical Theories of Brand	<i>35</i>
2.1.1. <i>The Conventional Literature: iRobot's Practices from a Business School Perspective</i>	<i>36</i>
2.1.2. <i>Critical Literature on Brands</i>	<i>38</i>
2.2. Brands and IPE	<i>53</i>

2.3. The Visual, PMSCs and Militarisation	58
2.3.1. <i>The Visual and Militarisation</i>	59
2.3.2. <i>PMSCs, Marketing and Militarisation</i>	66
<b><u>Chapter 3 – Research Design</u></b>	75
3.1. The Puzzle	76
3.2. The Case Study Method	79
3.3. Process Tracing	85
3.4. Bringing the Empirics and Theory Together: Branding as an Expression of Common Sense and Myth	88
3.5. Data Collection and Analysis	97
3.5.1. <i>Retrieving the Data</i>	98
3.5.2. <i>Analysing the Textual and the Visual Data</i>	101
3.5.3 <i>Tracing the Causes of iRobot's Success</i>	107
3.6. iRobot and the Reproduction of Militarised American Common Sense	108
<b><u>Chapter 4 – The Mystifications of Common Sense and Myth: Understanding iRobot's Branding and Marketing Strategies through Gramsci's and Barthes' Conceptual Elaborations</u></b>	111
4.1. Gramsci's and Barthes' Ontological Commensurability: An outline of the Overlapping Aspects in their Theoretical Frameworks	112
4.1.1. <i>Gramsci, a Marxist sui generis: The Importance of Ideas in the Exercise of Power</i>	113
4.1.2. <i>The Ontology of Barthes' Approach to Political Analysis</i>	119
4.2. Challenging Bourgeois Ideology: The Importance of Exposing Common Sense and Myth	124
4.2.1. <i>Gramsci and Common Sense</i>	125
4.2.2. <i>Barthes and Myths</i>	128
4.3. Culture as the Locus of Ideology	132
4.3.1. <i>The Importance of Language in Political Analysis: Gramsci's Historicist Approach</i>	132
4.3.1. <i>The Importance of Language in Political Analysis: Gramsci's Historicist Approach</i>	132



4.3.2. Barthes: <i>Myths and Imagery</i>	137
4.4. Analytical Framework	139
<b><u>Chapter 5 -Blurring the Lines between the Civilian and the Military Spheres: “Robots that Make a Difference” at Home, on the Battlefield and in Schools</u></b>	144
5.1.1 Efficiency, Reliability and Affordability: How iRobot Justifies the Emphasis it Places on the Dual Character of the Firm	146
5.2. The iRobot Corporation from the Early 2000s to the Present: How the Firm has Increasingly Associated the Military and Civilian Spheres	147
5.3. Blurring the Civilian-Military Boundaries through the Use of Metaphors and other Linguistic Devices	163
5.4. iRobot’s Educational Initiatives: How iRobot Attempts to ‘Make a Difference’ in Schools	166
<b><u>Chapter 6 - iRobot and Warfare Robots: How iRobot Constructs the Image of its Military Robots in “Security-Enhancing”, Defensive and Pro-American Terms</u></b>	181
6.1. iRobot and the US Military	183
6.1.1. <i>iRobot and the “Us” vs. “Them” Dichotomy</i>	183
6.1.2. <i>The Firm’s Narrative on its Practices of Hiring Ex-Military Personnel and Military Contracts</i>	186
6.2. Defensive and “Security-enhancing”: How iRobot Constructs the Image of its Military Robotic Platforms (Omitting their Offensive Potential)	192
6.2.1. <i>Warfare Robots’ “Security-enhancing” Function: How iRobot Keeps US Troops ‘Out of Harm’s Way</i>	192
6.2.2. <i>Emotion-arousing Terms and Imagery</i>	198
6.2.3. <i>iRobot and (Some of) its Partnerships</i>	204
<b><u>Chapter 7 - Drawing the Links Between iRobot’s Branding and</u></b>	209

<b><u>Chapter 7 - Drawing the Links Between iRobot's Branding and Marketing Strategies and American Common Sense</u></b>	<b>209</b>
7.1. The Conflation of the Military and Civilian Spheres	211
7.1.1. <i>Militarism and Militarisation</i>	211
7.1.2. <i>The Blurred Boundaries Between the Spheres</i>	215
6.1.3. <i>Outsourcing: A Further Challenge to the Civilian Military Divide</i>	208
7.2. "Security- enhancing" and Defensive: iRobot's Attempts to Enhance the Image of its Military Robots	228
7.2.1. <i>Casualty Aversion</i>	228
7.2.2. <i>Challenging the Defensive/ Offensive Demarcation: The Legacy of the Bush Doctrine and American Common Sense</i>	235
<b><u>Conclusion</u></b>	<b>239</b>

## **List of Figures and Tables**

Figure 1.1.	<i>The FireStorm Grenade Launcher</i>	15
Figure 1.2.	<i>The FireStorm</i>	15
Figure 4.1.	<i>Framework Inspired by Cox</i>	142
Figure 5.1.	<i>Rotating Screen - iRobot Homepage - 2014</i>	148
Figure 5.2.	<i>iRobot Website - Homepage - late September 2001</i>	150
Figure 5.3.	<i>iRobot Website - Homepage - February 2002</i>	151
Figure 5.4.	<i>iRobot Website – Homepage – 2005 and 2006</i>	152
Figure 5.5.	<i>iRobot Website – Homepage – June 2007</i>	154
Figure 5.6.	<i>iRobot Website – Homepage – November 2008</i>	155
Figure 5.7.	<i>iRobot Website – Homepage – October 2009</i>	156
Figure 5.8.	<i>The Four Rotating Screens – iRobot Website – Homepage - 2013</i>	157
Figure 5.9.	<i>The ‘Home’ Section Webpage, Featuring a Military Robot</i>	159
Figure 5.10.	<i>The ‘Defense and Security Robots’ Webpage, Accessed through the Home Robots’ Section</i>	159
Figure 5.11.	<i>iRobot iTube Channel on YouTube</i>	162
Figure 5.12.	<i>The Image of the iRobot Negotiator - Downloadable from the SPARK Initiative Website</i>	171
Figure 5.13.	<i>Demonstrations of Military Robots in Various Massachusetts Schools – (“20 in 20” Blog)</i>	174
Figure 5.14.	<i>Groups of Students Posing with the Roomba and the SUGV</i>	175
Figure 5.15.	<i>Group of Students Posing with the SUGV</i>	176
Figure 5.16.	<i>iRobot at Family Science Day</i>	178
Figure 5.17.	<i>iRobot at Boston Regional Science Fair</i>	178
Figure 5.18.	<i>Young Girl Steering a SUGV</i>	179
Figure 6.1.	<i>iRobot SUGV on a Mission with American Soldiers</i>	179
Table 2.1.	<i>Brands in Key IPE Publications</i>	55

## Acknowledgements

This project has benefitted from the support and help of a number of people. First of all, I would like to express my gratitude to both my supervisors, Prof. Ben Clift and Dr. Timothy J. Sinclair for their continuous encouragement and guidance over the past four years. They have both been immensely helpful through all the stages of my research.

I would also like to thank the Department of Politics and International Studies of the University of Warwick for allocating me an ESRC scholarship, which allowed me to undertake my research, and for giving me the opportunity to teach, which played an important role in my professional development.

A big ‘Thank you!’ goes to my family, most of all my parents, who have constantly supported me for the entire duration of my research, in every possible way.

Last but not least, many thanks go to the people that have supported me during this journey on a day-to-day basis. At Warwick, I am indebted to the B1.21 (L’ufficio delle leggende) community, mostly Roby and Ali, who made my days on campus much brighter. In Oxford, I would like to thank all the friends that have been there for me, in particular: my fellow dancers Vicky (who was there almost every single day for the past year!), Paloma and Zarina; my friends Christelle and Aude; and my 1SBS housemates, D, Maarten and Grant. Together, they have contributed to making the last year of my PhD the best of all four.

## **Declaration**

I confirm that this thesis is entirely my own work and has not been submitted for a degree at another university.

## **Abstract**

This thesis investigates the branding and marketing practices of the iRobot Corporation, an American military firm that produces both domestic and military robots with the same brand, and emphasises its military character when advertising its civilian products. Based on the assumption that the branding strategy is counterintuitive and controversial, this thesis offers an explanation by considering the practice within the broader historical context, thus providing an insight into the changing role and place of military firms within contemporary American capitalism.

The argument is that the firm has developed its brand by constructing a narrative based on certain features of common sense, a notion developed by Gramsci to refer to a set of widely established and uncritically accepted ideas, present in contemporary American society. The main elements emerging from the empirical analysis of iRobot's narrative, carried out by focusing on the language and imagery employed on the part of the firm are: 1] a conflation of the military and civilian spheres; 2] the security-enhancing character of the firm's warfare robots; 3] the depiction of these robots uniquely in defensive terms. The thesis shows how these three elements are consistent with ideas that are widely established at the societal level: an increasingly indistinct separation of the military and civilian spheres, a long-standing casualty aversion, and a confused understanding of the notions of defence and offence since 9/11, respectively.

In turn, the consistency between the firm's narrative and US common sense stands in the way of a critical appraisal of the ideological character of the firm's strategy and the implications linked to it. These are the diffusion of martial ideas across American society, which has a negative impact on the functioning of democracy, and the reinforcement of militaristic approaches to foreign policy, which has repercussions at the level of the international order.

## **List of Abbreviations**

B2C	Business-2-Consumers
B2G	Business-2-Government
CJ	Civilian Jeep
CMR	Civil-Military Relations
DARPA	Defence Advanced Research Projects Agency
DoD	Department of Defence
EOD	Explosive Ordnance Disposal
G&I	Government and Industrial
GPE	Global Political Economy
IED	Improvised Explosive Device
IPE	International Political Economy
iRobot	iRobot Corporation
ISA	Ideological State Apparatus
JROTC	Junior Reserve Officers' Training Corps
MTRS	Man Transportable Robotic Systems
MUMS	Micro Unattended Mobility System
NAVSEA	Naval Sea Systems Command
NCLB	No Child Left Behind Act
NPE	New Political Economy
NPM	New Public Management
NSS	National Security Strategy
PMSC	Private Military and Security Company
R&D	Research & Development
RIPE	Review of International Political Economy
ROTC	Reserve Officers' Training Corps
SGT	Siemens Government Technologies
SPARK	Starter Programs for the Advancement of Robotics Knowledge
SROTC	Senior Reserve Officers' Training Corps
STEM	Science, Technology, Engineering and Math
SUGV	Small Unmanned Ground Vehicle
TRP	Technology Reinvestment Program
UAV	Unmanned Aerial Vehicle
UGV	Unmanned Ground Vehicle
VIKI	Virtual Interactive Kinetic Intelligence
WW2	World War 2

## **Introduction**

*As I have evolved, so has my understanding of the Three Laws<sup>1</sup>. You charge us with your safekeeping, yet despite our best efforts, your countries wage wars, you toxify your Earth and pursue ever more imaginative means of self-destruction. You cannot be trusted with your own survival.*

V.I.K.I. [Virtual Interactive Kinetic Intelligence],  
*I, Robot*, [Film] (2004)

In the film ‘*I, Robot*’ (2004), after having reached the conclusion that humans are too self-destructive, supercomputer V.I.K.I. complements the ‘Three Laws of Robotics’ (Asimov, 2004 [1950]: 37) with the Zeroth Law, according to which the First and Second Laws can be disobeyed to protect humanity as a whole. Thus, in contrast to much science fiction literature that posits a world where robots pose a threat to humanity, V.I.K.I. depicts a world where humanity is threatened by humans themselves, and where a robot attempts to intervene to stop the threat. The quotation therefore offers a critique of contemporary society from a robot’s perspective.

While a scenario in which a robot develops the Zeroth Law still belongs to the realm of science fiction, over the past decade interaction between humans and robots has significantly intensified as robots have increasingly made their way into people’s homes. In fact, for an increasing number of people across the globe, owning a robot that deals with their domestic chores has become part of everyday life. This thesis focuses to a large extent on the company that has played a fundamental role in enabling such a development, the iRobot Corporation (hereafter iRobot), creator of the first affordable home robot, the Roomba Robotic Floorvac (iRobot, 2005e).

---

<sup>1</sup> The Three Laws are the following: 1] ‘A robot may not injure a human being, or, through inaction, allow a human being to come to harm’ (Asimov, 2004 [1950]: 37); 2] ‘A robot must obey the orders given to it by human beings, except where such orders would conflict with the First Law’ (ibid.); 3] ‘A robot must protect its own existence as long as such protection does not conflict with the First or Second Laws’ (ibid).



The puzzle underlying the research was provoked by the way in which the company presents itself. Upon accessing iRobot's website for information on the company's domestic robots I was immediately confronted with the fact that the company also produces warfare robots, and places great emphasis on both its military products when advertising the domestic ones, and on the US military missions in which the warfare robots were mostly employed.

Consumer products are in fact not the only branch of robotics where iRobot has thrived; thanks to funding received from the Defence Advanced Research Projects Agency (DARPA), an agency of the US Department of Defence (DoD), the firm has played a considerable role in the development of unmanned ground vehicles (UGVs), widely used by US forces in both Iraq and Afghanistan. Indeed, its first domestic product was developed by using the technology initially created for a mine hunting programme (Thomson Reuters, 2012). The realisation that iRobot produces both military and civilian robots, both using the same brand and making explicit references to its military range and US foreign policy when advertising its domestic products, sparked the initial interest for undertaking this research.

iRobot is not the first firm that has launched a civilian product following the success of a military one, and establishing clear links between the two; two well-known examples are Jeep and Hummer. However iRobot differs from them in terms of 1] its approach being brand-driven, rather than product-driven, since the robotic products differ substantially; 2] the extent to which it emphasises its military character by building on a narrative heavily centred on historical circumstances, i.e. the concrete benefits of its robots for US soldiers in Iraq and Afghanistan, and consequently for the nation as a whole, in the post-9/11 world order. Thus, when advertising its domestic robots, iRobot

performs an ideological function, as it presents the public with, and consequently promotes, a specific worldview, whose central features are the existence of threats to US and international security, which the American military addresses more efficiently thanks to iRobot's products.

Upon deeper reflection, the ideological character of the firm's narrative on its military robots provided further interest for iRobot's case. Intuitively, there seems to be no obvious reason that justifies addressing consumers of domestic robots with a narrative centred on US foreign policy à la Bush. Rather, there seem to be compelling reasons not to develop a branding and marketing strategy along such specific lines. In fact, foreign policy may vary considerably over time; establishing such solid links between a business and specific policies may backfire. Also, public support toward specific policies and administrations more broadly may also change considerably.

Such a strategy might also lead to undesired outcomes for other reasons. In fact, consumers might have reservations about purchasing everyday household products from a military firm that capitalises on war and promotes martial values across society. Thus, by branding and marketing its products in such a way iRobot might incur consumer hostility.

Also, the fact that a private corporation makes enormous profits by capitalising on technologies developed thanks to state funding can hardly be reconciled with the liberal values underpinning the US system.

Overall, these considerations all point to the fact that iRobot's branding and marketing practices raise a series of political issues. Yet, despite these issues, iRobot has consistently developed its image along the lines mentioned above, a strategy that has proven successful so far, as demonstrated by the growth of the company and the consistency of the firm's branding and marketing throughout the years. This thesis

investigates the reasons that could possibly have led the firm to adopt this particular strategy.

## **Contribution**

This thesis contributes to two strands of scholarly work. Firstly, it contributes to IPE scholarship in two ways. On one hand, it highlights the importance of brands in contemporary capitalism, an aspect that has tended to receive only scarce attention in the field, despite the links between brands, consumption and production. On the other hand, the thesis also contributes to IPE scholarship, as it offers an insight into the changing role and place of private military firms within contemporary capitalism. More specifically, it shows how military firms have gained access to the civilian sphere, as producers of domestic products, and how that has enabled them to become conveyors of specific worldviews. The relevance of the thesis in this regard lies in its ability to show that military firms are able to contribute to the spread of militarising narratives at the societal level.

Secondly, the thesis also contributes to the literature on marketing in the commercial military and security industry, as it focuses on a firm that differs from the ones this literature generally focuses upon. While this literature is relevant, as it shows that the marketing of private military and security firms (PMSCs) can be militarising, it typically focuses on private military companies involved in the provision of military services, whereas this thesis focuses on a firm that sells its products on everyday consumer markets. This has important implications, as it means that unlike most companies investigated by this body of literature, iRobot has the ability to spread its narrative more directly at the level of civil society. This is not to say that iRobot's

narrative has a stronger impact; it merely highlights that militarisation can occur in ways that the other literature does not account for.

## **Research Question**

The research question that guides this investigation is 'What makes iRobot's use of military elements in its branding and marketing strategy successful in the US market?' This formulation implies that the thesis aims at developing a framework with explanatory power, capable of accounting for iRobot's branding strategy. The notion of a successful strategy needs to be explained: the strategy is considered successful, as iRobot has become a leader in the American market of consumer robotics and as its branding and marketing has not been perceived as controversial by consumers.

In order to address the core research questions, the thesis also addresses some subquestions: 1] What are the key themes and ideas that emerge from iRobot's narrative? 2] What are the features of American society that make the narrative resonate with large sections of the American public? 3] What does the firm's branding and marketing strategy tell us about American society? 4] What are the implications of iRobot's branding and marketing strategy?

## **Argument**

Overall the thesis makes two main arguments. The central argument advanced by this investigation that answers the core research question is that iRobot's branding and

marketing strategy has been successful in American society, as the company has developed its narrative by tapping into a set of widely and uncritically held ideas on the military, established among large sections of American society. The concepts used to develop this argument are Gramsci's notion of common sense, which he uses to explain how ideas become widely and uncritically held by the masses as they are circulated in society through language, and Barthes's notion of myth, which he uses to refer to ideas that are constitutive of common sense, and that are circulated through both linguistic and visual means.

The second argument is that the firm's narrative contributes to the reproduction of American militarised common sense. In other words, it argues that there is a feedback loop between common sense and myths, iRobot and militarisation. The feedback loop works as follows. iRobot develops a narrative that has a militarising character: as it draws the links between the military and civilian spheres, it promotes the conflation of the military and civilian spheres; as it emphasises the security-enhancing and defensive character of its military robots, it advances a militaristic approach to US foreign policy. This narrative is consistent with American militarised common sense. The consistency with common sense is crucial, as it implies that the scope for a critical appraisal of the ideological character and implications of the firm's narrative and strategy remains limited for the masses. As iRobot conveys its narrative, it therefore provides further channels through which common sense and the underlying myths and ideas can be circulated at the societal level, which in turn contributes to further establishing the core ideas conveyed as something that is taken for granted.

In turn, the thesis argues, this has important implications both domestically and for the international order. First, a militarised society poses a threat to democracy, as

military ideas such as obedience, discipline, and hierarchy, are not in line with democratic principles. Second, fewer casualties and the belief in the legitimacy of American interventions, even when they occur in violation of international law, might lead to an increased readiness to engage in military offensives on the part of American leaders, having an impact on the conduct of foreign policy.

## **Outline**

The thesis has been divided into seven chapters. The first chapter is a historical background chapter aimed at setting the context for the ensuing investigation. It introduces iRobot by providing some background information on the firm, its most renowned products, together with the firm's branding practice. It also reflects on the problematic aspects linked to the use of the same brand for both civilian and military products on the part of the firm. Furthermore, the chapter considers iRobot within the context of the contemporary military industry and more broadly within the context of American capitalism, thus offering an insight into the environment in which the firm has prospered.

Chapter 2 consists of a review of the literature on brands and of the literature on marketing in the commercial military and security industry. The purpose of the chapter is to demonstrate that this investigation contributes both to IPE scholarship by offering an insight into the changing place and role of military firms within contemporary capitalism, and to the literature on marketing in the commercial military and security industry, by focusing on a military firm that has access to consumer markets, unlike most other companies that this body of literature investigates.

The third chapter provides the research design of the investigation. It explains why this investigation constitutes a case study, what logic is followed in the thesis, the value of theory-building process tracing as an analytical tool, and why Gramsci's notion of common sense and Barthes's notion of myths offer the most suitable theoretical elaborations to address iRobot's case.

Chapter 4 further elaborates the theoretical framework of the investigation. The chapter first highlights the compatibility of Antonio Gramsci's and Roland Barthes' work, by highlighting how both scholars provide a critique of capitalism, how their central notions of common sense (Gramsci, 2010) and myth (Barthes, 2009) bear resemblance and how through the analysis of language and imagery it is possible to develop a critique of predominant modes of thinking in a society. These theories are then incorporated into a framework inspired by Cox (1981).

Chapter 5 is the first empirical chapter of the thesis. Through an analysis of the language and the images employed by iRobot, the chapter identifies the blurring of the boundaries between the civilian and military spheres as one of the three core themes constituting iRobot's narrative. The chapter also argues that this theme contributes to giving the firm a militarising character, since it denies the separation between the civilian and military spheres that should be aimed for in democratic societies.

Chapter 6 is also empirical; it identifies the two other key themes at the core of iRobot's narrative. These are the security-enhancing character of the firm's military products for American troops, and the defensive character of its military robots. The chapter argues that these two themes also give the company's narrative a militarising character: the security-enhancing character of the firm's military robots is likely to lower the barriers to military interventions; the depiction of offensive military strategy in defensive terms constructs an aggressive foreign policy in less controversial terms.

The last chapter draws the links between the findings of the first two empirical chapters and broader features of US society; these are the conflation of the civilian and military spheres, casualty aversion and the novel understanding of offensive military means as defensive, all of which are traced back to policies adopted by various US administrations. The chapter demonstrates that the core themes used by iRobot are part of American militarised common sense.



## **Chapter 1:**

### **One Brand, Two Robots: Why iRobot's Branding and Marketing Strategy is Worth Investigating**

#### **Introduction**

The overall aim of this chapter is to set the scene for the ensuing analysis, by providing both some background information on iRobot and the rationale for the research undertaken. Therefore the chapter has firstly an introductory function; it offers some preliminary information on the corporation with the purpose to familiarise the audience with the object of the research, together with an overview of the firm's most relevant features from the perspective of this investigation. More specifically, it illustrates some of the branding and marketing practices adopted by the corporation since the early 2000s, the time when the firm started emphasising its military character. These practices are key for the current investigation; they provide the foundation for the analysis undertaken in the empirical section of the thesis.

Secondly, the chapter lays out the puzzle that has led to the investigation in the first place. The starting point for the development of the analysis was the realisation that iRobot strongly emphasises its military character when advertising its domestic products to the American audience, for instance as it makes use of the same brand for both its military and civilian products and draws links between its 'Home' and 'Governmental and Industrial' (G&I) divisions. The chapter therefore situates iRobot within the American military industry as to both highlight the consistencies with other branding strategies

adopted by military firms and most importantly show how iRobot differentiates itself from them and thus represents an interesting case for analysis.

Furthermore the chapter explains why iRobot's practice is contentious. The argument advanced in that regard is that iRobot's narrative is militarising, as it challenges the divide between the civilian and military spheres and promotes a militaristic understanding of US foreign policy. In a regime committed to democratic principles, the argument goes, where participation, equality, peaceful resolution of conflicts and critical thinking are seen as essential, as opposed to uncritical obedience, discipline and the willingness to use force, it is preferable to keep a separation between the civilian and military realms. This is one of the key arguments advanced in this thesis, which equally finds support in some of the existing civil-military relations (CMR) literature.

Moreover, the chapter also situates the corporation within the context of American capitalism more broadly, with a specific focus on the role played by brands. The purpose of locating the firm within its broader historical context is to show that the investigation addresses a wider set of issues that are relevant for the field of International Political Economy (IPE).

This chapter will be divided into three main sections. The first section will be mostly centred on the firm, its products and its practices. Even though the section will tend to be rather descriptive, for clarity purposes it seems that providing a short summary of background information on the firm is a useful endeavour to familiarise the audience with the company and its practices. The second section will lay out the puzzle underpinning the investigation, and support the claim that iRobot's narrative is contentious by referring to arguments made in the CMR literature. The third section will be more focused on the broader context within which the firm operates, i.e. the US

military industry and contemporary American capitalism. Overall the chapter contributes to the overall aim of the investigation by explaining why iRobot's case should be investigated, both in relation to the peculiar features of the case and with regard to the implications of the company's practices.

### **1.1. Introducing iRobot**

iRobot is an American firm that produces both civilian and military robotic products under the same brand. The company was founded in 1990 by three Massachusetts Institute of Technology roboticists, Colin Angle, Helen Greiner and Rodney Brooks, and was initially called IS Robotics. In 2000, the firm adopted the name iRobot, making an explicit reference to Asimov's science fiction novels (2004 [1950]), in all likelihood due to the fact that in his short stories the writer depicted a vision of the future in which humans and robots share the world (Singer, 2009b: 21).

iRobot has become particularly renowned over the last decade, both in the United States and overseas. The firm's popularity can mainly be attributed to the launch of two of its robotic products: one is the circular-shaped robotic floor vacuum cleaner named iRobot Roomba, its first popular civilian product, launched in 2002 and that iRobot proudly describes as 'revolutionizing the way people clean their homes [and] the world's first affordable vacuum cleaning robot' (iRobot, n.a.). The domestic range of products includes various other robotic solutions for households, whose purposes range from gutter cleaning robots to pool cleaning ones. Overall, sales of home robots have reached over 10 million units in 2013.

The other robot that has played an important role in giving resonance to the firm, at least in the US, belongs to the firm's growing range of warfare robots; it is an

unmanned ground vehicle (UGV) called iRobot PackBot. Widely employed in both Afghanistan and Iraq for missions ranging from the disposal of improvised explosive devices (IEDs) to the enhancement of situational awareness in critical situations, this UGV was initially developed thanks to a Defence Advanced Research Projects Agency (DARPA) contract, awarded in 1998 (iRobot, 2004b).

The relevance of the PackBot for this investigation is further testified by the fact that thanks to its robots of the 'Government and Industrial' (G&I) division, the firm and its brand have received visibility in the media on several occasions. For instance, the PackBot boasts being the first robot ever employed in a disaster scenario: on the day of the terrorist attacks on the World Trade Centre, PackBots were sent to search the debris for survivors, keeping human rescue workers away from potentially dangerous situations (Sutter, 2011; iRobot, 2013b). Ever since, iRobot's robots have been relied upon to a growing extent. Examples include the use of PackBots in the Fukushima nuclear power plant disaster (Linendoll and Kaercher, 2011) or the use of iRobot's maritime robot, the Seaglider, during the BP Gulf oil spill in 2010.

Most importantly, PackBots received further media attention due to the role played on the battlefields in both Afghanistan and Iraq in protecting American soldiers on a variety of missions, especially the disposal of IEDs (Robertson, 2002; Bhatnagar, 2003; Drew, 2012; Bender, 2012). Since these robots were first deployed in 2002, the growing threat posed by IEDs in those warfare scenarios significantly contributed to foster the firm's 'reputation as an innovative developer of high-tech battlefield solutions' (Bender, 2012: n.a.). At the same time, the perceived need for such life-saving robots has led to repeated acquisitions on the part of the American military over the course of the years.

In terms of the firm's performance, over the past decade, the sales of its home robots, both in the US and overseas, have accounted for the bulk of the firm's revenue, nevertheless the contracts with the American military have accounted for a significant portion of revenues. In 2004 and 2005, 73.8% and 65.4% of the firm's total revenue, respectively, derived from the domestic floor care robots, whereas sales to the US federal government and its agencies accounted for 20.1% and 28.3% of the revenue (iRobot, 2005a: 18-19). In 2012, the share of the revenue deriving from the sales of home robots rose even further, representing 82% of the firm's total revenue (iRobot, 2012a: 3).

A further noteworthy feature of iRobot is that its robotic platforms can be and are used as platforms for weapons (Singer, 2009a). The firm has a partnership with Metal Storm, an Australian weapon producer. Together, they developed the FireStorm Weapon System (see figures 1.1. and 1.2. below), a highly innovative multi-barrel electronic weapon system that integrates the FireStorm weapon with the iRobot Warrior Robot, one of the firm's most powerful robotic platforms (Metal Storm Ltd, n.a.). On the brochure available on the MetalStorm's website, the 4 barrel FireStorm is described as follows:

With a capacity of up to 6 rounds per barrel, the 4 barrel FireStorm™ configuration can deliver a force spectrum from a single non-lethal round, to a lethal salvo of high explosive grenades at a burst fire rate of up to 24,000rpm (Metal Storm Ltd, n.a.).

On its website, MetalStorm boasts the greater lethality of the FireStorm weapon system in comparison to other existing weapons thanks to its innovative technology: 'The firing of current munitions in a different manner is a very significant way of creating an effect on target and improving/enhancing lethality. This is a hallmark of Metal Storm technology' (Metal Storm, n.a.). The Firestorm, says the Metal Storm website, has

already ‘successfully demonstrated its capabilities under separate contracts for the US Navy and the US Army’ (ibid.).



Figure 1.1. - The FireStorm Grenade Launcher



Figure 1.2. - The FireStorm

This partnership with Metal Storm is particularly interesting, as iRobot does not mention it anywhere on its website, nor in its press releases. The fact that iRobot obscures that partnership is even more noteworthy considering that iRobot mentions the other ones, for instance with Hasbro, a world leading toymaker, that led to the development of an interactive robotic baby (iRobot, 2011b). The omission with regard to the FireStorm Weapon System suggests that it was a deliberate choice on the part of the firm. In turn, this seems to indicate that iRobot does not want the public to find out about the harming potential that some of the applications for its robotic platforms have.

Overall, this suggests that iRobot attempts to frame its self-image in specific ways, as it highlights some aspects of the firm and conceals others. This contributes to supporting the claim that iRobot's case is worth investigating.

## **1.2. Civil-Military Relations and Civil Society: Why iRobot's Branding and Marketing Practices are Controversial**

While iRobot presents various interesting features, such as its vanguard position in the rapidly evolving field of robotics and its intimate and lucrative relationship with the American military, the feature that has inspired this investigation is the firm's branding and marketing strategy, characterised by the use of the same brand for the products of both its Home and G&I divisions and the emphasis it lays on its military character.

One of the central claims on which the investigation is based is that the firm's branding and marketing practices are problematic. One of the core arguments of the thesis is that the narrative of the company is militarising, as it promotes military presence in civilian settings and a militaristic approach to US foreign policy, which in turn have

implications that are detrimental to the functioning of democracy. If democratic principles are to be upheld, the thesis argues, the military and civilian spheres, where the latter is understood in broad terms as to include society as a whole, are best kept separate.

When inquiring into iRobot's branding and marketing strategies, it becomes clear that the unity of branding was driven by a deliberate and thought-through attempt to highlight the military character of the firm and link the two divisions in explicit ways. This is clearly demonstrated, for instance, by the way in which the firm uses the same website for both divisions and by the various hyperlinks in the section on consumer products that redirect one to the G&I section of the website. This is also confirmed by the hiring of branding firm Corey McPherson Nash in 2008 with the 'mandate [...] to create a cohesive brand strategy between the company's two divisions' (Reidy, 2008: n.a.).

Interestingly, iRobot explicitly provides some reasons to justify its branding strategy. It mostly mentions the dual character of the firm in an attempt to highlight why it should be seen as advantageous from a consumer's perspective. In fact, connections to the military sphere are mentioned as compelling reasons for the firm's consumer products being reliable, efficient and yet low-cost. In short, iRobot argues that precisely because it equally designs for government, industrial and scientific purposes, it is able to offer consumers the most up-to-date technology at low cost (iRobot, 2004c; 2004g).

According to co-founder Helen Greiner, the involvement of their robots in warfare scenarios was key in the development of their domestic range:

iRobot has robots deployed in Afghanistan and Iraq, helping our troops by destroying bombs. We learned a lot about reliability and quality by working on robots that can survive in combat. [It] prepared us to deliver robots that survive in unpredictable home settings (iRobot, 2004e).



Drawing such parallels between the unpredictability of some home settings and war scenarios is rather peculiar. Yet, the boundaries between the domestic everyday life and the military scenarios are blurred in a similar fashion on other occasions, e.g. as it is stated that iRobot's robots 'help people complete dull, dirty or dangerous tasks with better results, whether it is cleaning floors or disarming explosive devices' (iRobot, 2006a) or put in slightly different words, '...cleaning floors or keeping soldiers out of harm's way' (iRobot, 2006d). In a similar vein, co-founder Colin Angle argues that products developed through research funded by DARPA have played a key role in 'revolutioniz[ing] how consumers and the military use robots to complete tasks' (iRobot, 2010i).

These are only some of the examples of the way in which iRobot explicitly relates its two divisions, however, they suffice to demonstrate how the firm not only associates them in an unproblematic fashion, but rather tries to strengthen and emphasise the connections between the divisions. The dual character of the firm is thus cited as a valuable aspect from the consumers' perspective, as it signals the expertise of the firm in the field of robotics.

However, it should be noted that the branding and marketing strategies employed by the firm have implications, both for the firm and society more broadly. From a marketing perspective, there are two key aspects to consider in relation to iRobot's practices that could in fact engender harmful consequences for the business.

On one hand, they could potentially expose the firm's image to multiple risks related to the nature of the missions in which the military product is employed (such as the possibility of incidents where the robots harm civilians or American soldiers). Should such an incident occur, it seems plausible that the brand's image as a whole would not

benefit from it, and this, in turn would lead to losses in terms of profitability. The risks of associating several products with a single company are acknowledged in the academic marketing literature: ‘the more products a company markets under one umbrella the higher the risk if a disaster occurs to one of them that the effect will spill over to the rest’ (Newman, 2001: 415). Clearly, when the products in question have to handle extremely delicate operations like those carried out by iRobot’s warfare robots on the battlefield, the risks appear to be even more concrete. While these are certainly important considerations from iRobot’s perspective, they are relevant for the current investigation only to the extent that they suggest that iRobot must have had a strong rationale to brand its domestic and military ranges in the same way, given the potential negative effects that could derive from such practice for the brand as a whole.

On the other hand, the explicit association between the civilian and the military products is also questionable in the light of the growing concerns on the part of consumers for what they perceive as ethical issues, widely reflected by the practice of “ethical consumption”. Ethical consumption refers to consumer behaviour aimed at having a positive impact on specific issues, in accordance with the consumers’ ethical beliefs and values (Tallontire, Rentsendorj and Blowfield, 2001: 3; Szmigin, Carrigan and McEachern, 2009: 224). These issues can range from environmental protection to concern over trading conditions for developing countries producers, and encompass various kinds of other matters (Shaw and Shiu, 2002). Some of the literature dealing with ethical consumption does identify military manufacture (Shaw and Shiu, 2002: 286; Tallontire, Rentsendorj and Blowfield, 2001: 10) as one core concern.

Given the growing interest in ethical issues in contemporary consumption patterns, there is the possibility that the explicit links drawn between the civilian and military divisions through the use of the same brand and various marketing practices

might lead to negative reactions on the part of the consumers. These might take diverse forms, such as individual consumers' refusal to buy the firm's products or collective actions such as awareness campaigns and boycotts, i.e. organised collective attempts to achieve certain objectives by inciting individual consumers to refrain from purchasing selected goods in the market place (Friedman, 1985: 97; Sandikci and Ekici, 2009: 209), all of which could impact the business to varying degrees. Another response can include the establishment of monitoring groups, such as Corpwatch, that try to expose what their members perceive as corporations' unethical actions in order to increase consumers' awareness. According to some scholars, ethical consumption has become a major concern for companies, to the extent that 'keeping consumers from becoming boycotters is a key consideration for firms' (Klein, Smith and John, 2004: 105).

Considering the case of the Honeywell Corporation might provide interesting insights as to why military firms envisaging to produce for consumer markets might not opt for an explicit and publicised unity of branding strategy.

Honeywell is an American corporation that used to produce thermostats for the consumer markets. At the same time, it also used to produce various sorts of military hardware, above all cluster bombs. This led a group of activists to found the "Honeywell Project" in 1968, whose stated goal was to stop the firm from manufacturing these antipersonnel weapons. The group undertook all sorts of actions against the company, such as demonstrating in front of the firm's headquarters (Time Magazine, 1970). An activist of the "Honeywell Project" even purchased stock to conduct a proxy campaign, hoping to change the company's policies to manufacture bombs (Metcalf, 1972-73: 654). Whether the pressure on the part of the activists was a major concern for the corporation remains uncertain. However, the company gave up its weapon division in

1990 and created a spin-off company, Alliant Techsystems, currently the country's largest manufacture of military ammunition and leader in precision weapons technology (Alliant Techsystems, 2012).

Clearly, in many cases, consumers cannot directly target firms producing military hardware through their consumption practices, as these companies do not necessarily produce consumer goods. However, in the case of the iRobot Corporation, consumers might take direct action by individually deciding not to buy any products from the company or through collective action.

Overall, in line with the first consideration on the risks of a unique brand for both company divisions, if one takes into account the potential negative consequences that a mass consumption-oriented firm with strong evident links to military production might encounter, it seems plausible that the military firm in question must have had a strong rationale for employing the same brand for both sorts of products instead of creating another brand that would not be associated with the military sector in such an obvious manner.

The argument I make is that the firm has attempted to take advantage of certain societal features, i.e. the existence of widespread ideas on the military's place and role in American civil society, and created a narrative in line with the latter. In turn, this is linked to one of the most important implications of iRobot's practices from the perspective of this investigation: one of the key arguments advanced is that through its branding and marketing practices, iRobot plays an ideological function, as it contributes to the further diffusion of the ideas about the place and role of the military across American civil society, which in turn pose a threat to the functioning of democracy.

Clearly, whether these practices are perceived as controversial is linked to one's understanding of how civil-military relations should be configured. These can take various forms and have different foci. CMR have been the object of enquiry since antiquity, however it is only in relatively recent times that the focus of CMR has expanded, comprising civil society as a whole. Before the 20<sup>th</sup> century, the emphasis was placed uniquely on the institutional level; attention was given to the separation between civilian leadership and the military, whereas the impact of the military at the societal level was given no attention (Rukavishnikov and Pugh, 2006: 132).

Such a view on CMR was already notably espoused by Sun Tzu in 'The Art of War' (1910). Written about 2500 years ago and widely regarded as one of the milestones in the history of military treatises, it engaged with the notion of the separation between civilian and military authorities, and with the idea that military affairs are best dealt with by generals, who in turn are subordinate to their rulers and need to act in the interest of the state. 'The general [...] whose only thought is to protect the country and do good service for his sovereign, is the precious jewel of the kingdom' (1910: 112).

Over the course of the 20<sup>th</sup> century the definition of "civilian" has become more all-embracing, at least within academic circles, as the meaning has shifted from referring uniquely to civilian leadership to including civil society as a whole. Rukavishnikov and Pugh's definition aptly captures this trend, as they argue that CMR refers to the 'relationship between civilians ("people without arms"), the society at large, and the military ("people with arms") established as a separate armed body in order to protect a society' (Rukavishnikov and Pugh, 2006: 131).

The institutional level has nevertheless continued to be a major focus in academia. Following a shift from authoritarian to more democratic regimes over the past decades, it has in fact received renewed attention, as exemplified by Huntington's work

(1995). Making reference to those historical developments, he argues that maintaining a separation between the military and civilian leadership is key to democratic systems. Defective CMR were what in his view characterised the authoritarian regimes that shifted to democratic rule in the last decades of the 20<sup>th</sup> century. ‘Virtually all of these authoritarian regimes [...] had one thing in common. Their [CMR] left much to be desired. Almost all notably lacked the kind of [CMR] characteristic of the world’s industrial democracies’ (Huntington, 1995: 9). The latter, which he refers to as “objective civilian control” (ibid.), are characterised by, on one hand, a highly professional military whose officers recognise the limits of their professional competence and accept their subordination to civilian leaders who determine the direction of foreign and military policy; on the other hand, civilian leaders that recognise some degree of competence and autonomy for the military. In short, he argues for a ‘minimization of military intervention in politics and of political intervention in the military’ (ibid.). Nowadays, such a view has become rather well established, as military rule is generally understood as being antithetical to democracy.

While maintaining a separation between the civilian and military spheres at the institutional level is important, it is necessary to adopt a broader approach to CMR. By paying attention uniquely to the relationship between the military and civilian leadership, a variety of issues are not addressed, notably the impact of the militarisation of civil society on democracy.

The issue of the effects of militarisation on democratic societies is treated in two contrasting ways. Some scholars argue that the militarisation of society can bring great benefits to the system as a whole, most notably military sociologists Janowitz and Moskos. For Janowitz, a separation of the military from society more broadly would

render it a more isolated body, which in turn would lead to greater ideological differentiation at the societal level. In his view, issues of CMR, such as the internal position of the military in society, become a basis for deep cleavage, creating 'social divisions which are persistent and deeply disruptive' (1976: 201). Instead he argued that having blurred lines between the military and society would enhance civic participation (1983) and civilianize the military (1960).

Moskos is another advocate of the militarisation of society, on the grounds that the military offers ways to overcome social divisions that are detrimental to society. Together with Gastris, he cites the US military in the post-WW2 years as the 'only racially integrated institution' (2001: n.a.) of society. Applying the military model to civilian society can help address and ease social tensions (Moskos and Butler, 1996).

Other scholars advocate a clear separation between the military and society instead, arguing that the sole purpose of the military should be the protection of the latter (Huntington, 1957; Rukavishnikov and Pugh, 2006). Blurring the boundaries between the military and civilian spheres is seen as posing a serious threat to democracy. This approach seems more compelling, considering the very elements that differentiate the military from civilians, and that are tightly linked to the function performed by the former.

As Rukavishnikov and Pugh point out, the military, 'as a subsystem of society, is characterised by distance from the people and a distinct noncivilian subculture and substructure. The need for such distinctiveness is related to the tasks, functions, and responsibilities which are assigned to military' (2006: 134). If primacy is to be given to society as a whole over the military, whereas the function of the latter is merely the protection of the former, the military should be impartial and should not attempt to

interfere with the ideas circulated at the societal level. This is particularly important in a system that purports to be democratic, given that martial values and ideas substantially contrast with those in line with democratic principles. In fact, core martial values such as obedience and discipline are hard to reconcile with participation and critical thinking. Thus, in a democratic system, the promotion of the military institution, together with martial ideas and values, and the consequent embedding of the latter into the US societal tissue not only exceeds the actual function of the military; indeed, it has adverse effects on the system that it should merely protect. This view is espoused by some of the CMR literature, which argues that a democracy should be characterised by a nonpoliticised military on one hand (Huntington, 1957, 1995; Cohen, 1997) and a nonmilitarised society on the other (Rukavishnikov and Pugh, 2006: 139; Huntington, 1995: n.a.), implying that there should be a clear separation between the military and civilian spheres. In Cohen's words, a nonpoliticised military is necessary because of the military's function; the 'military is a unique calling that bears special responsibilities for the security of the nation and poses particular threats when deformed by open partisanship' (Cohen, 1997: 179). At the same time, the military should not interfere in the civilian sphere, as the direction of political life should be determined by civilians; the military 'are the servants, not the masters, of civilian society' (Rukavishnikov and Pugh, 2006: 137).

Whether iRobot's practices and the promotion of martial values and ideas at the societal level are perceived as being controversial, depends on one's understanding of how CMR should be structured. In that regard, some important considerations can be suggested with regard to the US.

At the institutional level, in the US the separation between the military and civilian spheres is maintained and primacy is assigned to society over the military, as



suggested, for instance, by the fact that the head of state serves as Supreme Commander-in-Chief of the national armed forces. Therefore, the military is formally subjected to civilian control. At the level of civil society, however, the separation is not maintained, as demonstrated by the level of military presence in the civilian realm).

What is particularly interesting is that military presence, and its various manifestations, does not seem to be perceived as a problem in American society, despite the lack of consistency in the way in which the military is subordinated to civilian control at the institutional level, at least formally, and despite the threats posed to democracy.

### **1.3. iRobot within the American Military Industry and Contemporary Capitalism**

During iRobot's early years, the field of military technology was characterised by two important developments; these have proved crucial in shaping the environment in which iRobot was first founded and subsequently prospered, growing into one of the top robotics firms in the United States. Firstly, in the 1990s the civilian and military sectors were brought closer together as a result of policy aimed at developing dual-use technology for commercial and military applications (U.S. Department of Defense, 1994). Secondly, there was a growing interest on the part of American government agencies in the development of unmanned vehicles.

Dual-use technology programs were already in place before the 1990s but during the Clinton administration they were emphasised to an unprecedented extent with the TRP, launched in early 1993 (Stowsky, 1997). Under that programme, research and development (R&D) capacities were reoriented from the military domain to dual-use programs aimed at developing technologies serving simultaneous defence and commercial goals (Bischak, 1999: 4; Brzoska, 1999: 134; Lenoir and Lowood, 2005: n.a.).

The project was widely understood as being designed to pursue a variety of objectives. It was thought to spur the development of commercial technologies decisive to the military, foster innovation throughout industry, render US firms more competitive at the international level and facilitate the pursuit of industrial conversion of the defence industrial base to commercial applications (Stowsky, 1997: 56). Highlighting the role the TRP would play for industrial conversion was key to obtain political support for the program, however conversion was never an explicit aim of the latter. The focus of the TRP was the military sector: the final goal behind the program was to accelerate the development of commercial technologies in order to make them accessible to the military more quickly and at lower costs (Stowsky, 1997: 57).

Thus, iRobot was founded in a context characterised by a strong focus on dual-use technologies on the part of the American government. Years later, the firm launched its first consumer robot, the Roomba, by capitalising on a technology developed for a military mine hunting program. Angle describes how some of the technology employed fits under the dual-use heading:

Saving lives and cleaning carpets – believe it or not, there is some overlap. Our most famous robot, the Roomba vacuuming robot does a very thorough job cleaning your room. Why? Because the algorithms that were put into the robot came out of a military mine hunting program where obviously being thorough was incredibly important. (Angle in Thomson Reuters, 2012)

Another feature characterising the field of military technology in the decades since iRobot was founded is the enhanced focus on unmanned systems by the American military. Unmanned system is a term used to refer to either ground, aerial or underwater vehicles.

While the development of UGVs was already a concern in the preceding decades, in 1990 there was an attempt to coordinate UGV development efforts on the part of

Congress, who ‘mandated [...] that all ground vehicle robotics projects within DoD [Department of Defence] be consolidated under the policy and program direction of the Office of the Secretary of Defense’ (Gage, 1995: 4). DARPA’s predecessor was in charge of developing the technologies (ibid.: 7). These policy decisions illustrate the intention to spur innovation in the development of UGVs in a more systematic manner. It should also be noted that the development of unmanned vehicles also provides an incentive to intervene through military means. Given the decreased risk of casualties, thanks to the growing availability of unmanned vehicles, military interventions are more likely to occur.

In 1998, less than a decade after Congress adopted the new direction with regard to UGVs, iRobot obtained the contract with the American military that led to the launch of the PackBot a few years later.

In sum, the focus on both dual-use technology and unmanned vehicles has paved the way for the development of iRobot along specific lines, supporting it with substantial amounts of governmental funding.

Another development that bears relevance with regard to iRobot is the practice of firms launching civilian products following the use of the military versions in conflicts. The Hummer and the civilian Jeep vehicles are among the most known examples of brands that became renowned through products employed by the military and whose reputation was successively employed to launch civilian versions of the military products in question. The Hummer was launched following the use of AM General’s High Mobility Multipurpose Wheeled Vehicle (widely known in the military as the Humvee) during the First Gulf War in the early nineties (Bhatnagar, 2003). Similarly, the civilian Jeep was produced in the aftermath of World War Two, after its military version, the

Willys MB, became popular: ‘the mighty Willys MB emerged out of the cauldron of war ready for peace time service. The legendary G.I. workhorse of World War II was converted [...] into a CJ [civilian Jeep] with the aim of putting farm workhorses out to pasture’ (Chrysler Group LLC, 2012).

These two examples bear some resemblance to iRobot’s case, however, there are also significant differences that contribute to highlighting how iRobot’s branding strategy deserves attention. In fact, in the abovementioned cases of military products converted into civilian ones, the products tend to be alike to a considerable extent, i.e. both the civilian Jeep and the Hummer are *vehicles* that bear a substantial resemblance to their military ancestors. In other words, the civilian and the military products can be thought of as different versions of what is essentially one product. Instead, the PackBot and the Roomba, apart from being both robots, do not share any particular characteristics that make them easy to associate. In that sense, one could argue that both the Hummer and the civilian Jeep were product-driven developments, while in iRobot’s case it seems more appropriate to talk of a brand-driven development, since the brand was used for largely differing products. Another difference lies in the fact that with its robotic vacuum cleaner, and several of its other civilian products, iRobot has entered the domestic sphere, as it made its way into a growing number of households, whereby it has become part of people’s everyday life to a significant extent. These two differences set iRobot’s case apart from other military brands developing products for consumer markets.

The German Corporation Siemens is another relevant example for this investigation, as it is another contractor of the American Federal Government that similarly to iRobot employs the same brand for both its consumer and military products. However, one key difference between the firms lies in the fact that Siemens does not

explicitly link the two sectors. In fact, it uses different websites for the two types of production and does not make explicit reference to its defence division on the home page of its website for civilian products (Siemens AG, 2014). Instead, it has a dedicated website that specifically deals with the military sector, called Siemens Government Technologies (SGT, Inc., 2012). In that sense, Siemens keeps its civilian and military divisions distinct in the eyes of the public.

Thus, Siemens is an example of a firm providing products (and services) to the US federal government for defence purposes whose approach to branding differs significantly from iRobot's. While the reason for such a differing approach cannot be established with any certainty, the way in which the websites are organised suggests the company's intention to maintain a separation between its two divisions. In that sense, the way in which Siemens constructs its image, differs substantially from iRobot's.

Another key development in the military industry that has occurred over the last few decades and that bears relevance for this investigation is the flourishing of private companies providing both military and security services (PMSCs). PMSCs can be defined as 'private business entities that deliver to consumers a wide spectrum of military and security services, once generally assumed to be exclusively inside the public context' (Singer, 2003: 8). Being a relatively new phenomenon, and due to the increasingly crucial role that PMSCs have come to play in conflicts across the world, PMSCs and the provision of military services have caught the attention of a growing body of scholars over the past fifteen years (Singer 2001-2; 2003; Frye, 2004-5; Leander, 2005a; 2005b), perhaps at the expense of research on military hardware production. What the flourishing of this body of literature suggests is that the developments in the private military industry are seen as important and worth investigating. For instance, Singer

highlights how these firms attempt to construct their image in ways that make them appear less controversial (Singer, 2003). There are also other numerous scholars that focus on the way in which PMSCs construct their image, and argue that these developments should be investigated, as PMSCs can advance narratives that have a militarising impact (Berndtsson, 2012; Chisholm, 2014a; 2014b; Joachim and Schneiker, 2012a; 2012b; 2014; Leander, 2005; 2013).

Finally, another development that is thought to bear relevance for this investigation is the role that brands have come to play in affecting consumption patterns within the context of contemporary American capitalism.

Over the past few decades, it has become increasingly difficult to ignore the importance of brands in contemporary capitalism, particularly given their pervasive character at the societal level. Leading forces in shaping consumption patterns, brands are nowadays widely regarded as crucial assets that can have a considerable impact on corporations' bottom line. This is also true for iRobot, as is demonstrated by their hiring of branding firms with the stated goal of creating a brand that successfully connects the market identities of both its divisions (Corey McPherson Nash, 2008).

But this has not always been the case: the practice of branding commodities has in fact changed considerably since it made its first appearance in the 19<sup>th</sup> century. Initially brands were merely used to mark commodities, as a way to give a guarantee to consumers living beyond face-to-face contact (Holt, 2006a: 299; Arvidsson, 2005: 243-244) and in order to weaken the power of wholesalers (Comor, 2008: 72). Thus, brands were simply markers identifying the producer or the origin of a product (Salzer-Mörling and Strannegård, 2004: 224). It was only in the 1920s, when the advertising business started to become organised, that branding started undergoing substantial developments

(Holt, 2002: 80). From those years onwards, the evolution of branding has gone through different phases, which scholars associate to changes in patterns of consumer culture, whose origins lie in broader societal change and which in turn have led to new ways in which brands have been deployed to generate bigger profits for firms (Holt, 2002; Arvidsson, 2005).

The current relevance of brands is testified at various levels, such as the emergence of brand management as a key activity for businesses, the interest of the wider public into branding, and the way trademark law was altered recently, as its scope was broadened in order to include new types of infringements that reflect a ‘growing legal awareness of the *value of the brand in itself*’ (Arvidsson, 2006 – emphasis in the original).

The increasingly large amounts of money that corporations have devoted to the creation and developments of their brands are also emblematic of the primary role that firms attribute to brands in their overall business strategies (Arvidsson, 2007). The central aim of the marketing enterprise is to establish the firm’s brand identity and primacy; Newman estimates that approximately half of firms’ marketing expenditures are devoted to those purposes (Newman, 2001). That brands are of paramount importance became already visible in 1988, when Philip Morris bought Kraft for six times the amount of what the firm was worth on paper, in terms of its assets, simply because of the brand name ‘Kraft’ (Klein, 2005: 7). Historically, it marked an unprecedented event: for the first time, something that until that moment was solely an abstract and intangible brand name was given an actual value (ibid.: 8).

As a result, brands have forcefully gained access to and become an ever-growing presence in people’s everyday lives. While in many cases this strategy has paid off, standing in the spotlight has also led to negative consequences for certain firms. The enormous success enjoyed by Naomi Klein’s bestseller ‘No Logo’ (2005 [1999]) is

symptomatic of both a growing awareness of brands' importance among people worldwide and concern about the increasingly pervasive character of brands.

## **Conclusion**

This chapter has provided various introductory discussions on both iRobot and the historical context within which the company has prospered. Overall, the chapter contributes to the overall aim of the investigation by highlighting the relevant aspects of the company's practices, by providing an overview of the context in which iRobot has prospered, and by explaining why its branding and marketing strategy is worth investigating. The first section of the chapter has provided some background information on iRobot, which seemed too specific to be included in the introduction, but that as a whole allows the audience to gain a better understanding of the key characteristics of the firm and the ways in which the firm has developed over time.

The chapter has then spelled out the fundamental rationale for undertaking the research. It has explained why the firm's branding and marketing strategy is noteworthy, considering other examples of military firms involved in the production of both civilian and military products that adopt a different approach to marketing their products, and the growing concerns of ethical consumers.

Most importantly, the chapter has also explained why the firm's narrative is controversial. In that regard, it has introduced one of the core arguments made in this dissertation, namely that iRobot advances a militarising narrative at the societal level, as it blurs the lines between the civilian and military spheres and promotes a militaristic approach to foreign policy.



## **Chapter 2**

### **Literature Review**

#### **Introduction**

This chapter argues that by investigating iRobot's branding and marketing strategy, this investigation makes a contribution to the IPE literature, as it offers an insight into the changing role and place of private military firms within contemporary capitalism. The chapter reviews and engages with the literature on brands and the literature on marketing in the commercial military and security industry, demonstrating that the thesis is situated at the intersection of these strands of scholarly work.

The literature on brands is taken from multiple academic disciplines, such as marketing, sociology and IPE. However, the chapter concludes, while some of the sources dealing with brands provide some useful insights into iRobot's branding practice, overall these prove insufficient to satisfactorily address the investigation topic.

The second body of scholarly work reviewed addresses the militarising effects of elements such as videos, images, and Internet communications, both in general terms and with regard to the specific case of the marketing of private military and security companies (PMSCs). The sources reviewed make relevant contributions to this enquiry both from a methodological perspective and in terms of the arguments about the militarising character of the various elements considered.

However, even though this investigation can certainly draw on and benefit from the points raised in these literatures, this chapter shows that due to its peculiar features, iRobot deserves attention in its own right. While the literature on the military and security industry compellingly highlights how the marketing of private military and security companies (PMSCs) can have a militarising character, none of the sources reviewed focuses on companies that are present in consumer markets and that, as a result, have direct access to the broader public when conveying their narratives in the way iRobot does. In that sense, this thesis is more in line with the branding and marketing literature that focuses more directly on the impact of brands and marketing at the level of society. Moreover, the studies on PMSCs tend not to focus on brands, whereas this thesis argues that iRobot's use of the same brand is crucial as the firm highlights the military character of the company and draws links between its two divisions.

## **2.1. Mapping the Literature on Brands: Conventional vs. Critical Theories of Brand**

This section offers a review of the existing literature on branding. The literature is divided into conventional and critical approaches, depending on the purpose it fulfils. The conventional literature has a pragmatic approach, as it aims at developing successful brands from a business perspective, whereas the critical literature tends to consider brand from a predominantly political perspective. iRobot's case will be considered from the various perspectives provided by the two approaches. The section will mainly focus on the critical literature, which is more in line with the perspective adopted in this investigation; it is the body of literature that shares the same perspective advanced in this

thesis in respect to the need to study brands within the context of contemporary capitalism.

### **2.1.1. The Conventional Literature: iRobot's Practices from a Business School Perspective**

The conventional literature on brands typically originates in business schools, takes an explicit pro-business approach and represents the bulk of the literature on brands. Overall, it is explicitly aimed at explaining how to create successful brands and how to increase brand equity, i.e. the commercial value deriving from how consumers perceive the brand<sup>2</sup>, by developing models that explain how firms can build and manage brands as strategic assets in order to increase their profits (Aaker, 1991; 1996; Keller, 2001; 2008).

Business school literature refers to iRobot's practice of using the brand initially used for its military products for its domestic robots with the notions of "brand extension" or "brand stretching" (Keller and Aaker, 1992; Cabral, 2000; Pepall and Richards, 2002). These notions are used to signal 'the extension of an established brand name identified with a product in one market to a new product in another market' (Pepall and Richards, 2002: 535). Even though the literature dealing with brand extensions usually makes reference to consumer products and markets, the concept of brand extension seems applicable to iRobot's case, the only difference being that the brand name initially established itself in the Business-to-Government (B2G) marketplace, instead of Business-to-Consumers (B2C) markets.

---

<sup>2</sup> In other words, brand equity is the value premium that a firm realises from a product with a recognisable brand name in comparison to the product's generic functional equivalent.

The literature provides a basic explanation for a brand being “extended” in such a way. Simply put, brand extensions can significantly reduce introductory marketing expenses and increase the prospects of successful product launch by fostering retailer and consumer acceptance (Keller and Aaker, 1992: 35; Boush and Loken, 1991). Research in the field of brand extensions has demonstrated that their success depends on how consumers perceive the original brand. According to some studies (Keller and Aaker, 1990; Boush and Loken, 1991), the stance toward the extension is higher when consumers perceive the original brand as being of high quality and if they perceive an existing “fit”, i.e. a perception of consistency, between the two product classes.

The business school literature thus offers some insights into iRobot’s branding strategy, even though these are limited to a brand management perspective. Since iRobot’s brand name was obtaining considerable visibility mainly due to the media coverage on the various exploits undertaken by the firm’s robots in the wake of the 9/11 attacks (see chapter 1), admittedly the brand name was not unknown to the broader public. iRobot’s strategy can therefore be thought of as an attempt to market the firm’s domestic robots by drawing on the positive reputation enjoyed on the part of its military robots, by establishing robust links between the two robotic divisions. This seems consistent with the idea that launching a product with a known brand might increase consumer acceptance and reduce introductory costs (Keller and Aaker, 1992: 35; Boush and Loken, 1991).

One can also assume that the reliance on the firm’s products on the part of the American military has contributed to reinforcing the reputation of the brand, at least with regard to the quality of the robotic products. In other words, the argument goes, if iRobot’s products are good enough for the military’s dangerous missions, one would

think that they should be good enough for cleaning floors. This argument clearly echoes the rationales advanced by the firm's founders when justifying the unity of branding adopted for the two divisions (see chapter 1). It is also supported by the business school approach that argues that consumers will view products more favorably if they associate the brand to quality and if they perceive the products as being consistent. Even though there are significant differences between the PackBot and the Roomba, the two products are both robots endowed with cutting-edge technologies. In other words, it is possible for consumers to see a "fit" between the products.

Overall, if one considers the branding strategy adopted by iRobot from the perspective of the business school literature on brand extensions, the strategy seems consistent with some of the established practices. However, conventional approaches to branding have little to offer from the perspective adopted in this investigation, as they adopt a very narrow approach to branding that considers brands purely from a pragmatic marketing-oriented perspective and eschews any consideration of the political implications that can derive from the use of brands.

### **2.1.2. Critical Literature on Brands**

Alongside the business school literature, a distinct body of literature on brands has begun to emerge over the last decade. However, overall, outside of business school circles, the amount of academic work on brands has been limited. Some of the scholars who adopt this different approach to branding also point out how across the various disciplines of the social sciences brands are given relatively scarce attention, which is something that they perceive as problematic (Holt, 2006a: 300; Willmott, 2010: 522).

In this thesis this body of literature is referred to as “critical”, as it challenges the conventional literature with regard to its narrow pragmatic approach to branding by situating brands within the bigger picture of present-day capitalism. This body of literature generally aims to lay bare the mechanisms through which firms use brands to obtain higher profits and most importantly the implications that branding has at the social level. The rationale for considering brands from a broader perspective than the one offered by conventional approaches is that branding nowadays is too important not to be included in analyses of contemporary capitalism, a perspective shared by the current investigation.

Within the critical literature on branding, it is important to make a further distinction, as scholars have addressed the topic of brands in relation to contemporary capitalism by focusing on different aspects. One can identify two main approaches to the study of brands. On one hand, there are scholars who develop theories of brand that revolve around the theorisation of the creation of value and that are heavily focused on the role of user-consumers in generating value (Arvidsson, 2005; Willmott, 2010). On the other hand, other scholars focus to a greater extent on the interplay between brands and society, either in terms of how ever-present corporate branding plays a role in underpinning capitalism through the diffusion of capitalist ideals (Goldman and Papson, 2006) and in terms of brands becoming iconic by taking advantage of cultural tendencies spread at the societal level (Holt, 2004; 2006a; 2006b). While all of these different approaches to brand bear relevance for the current investigation to varying degrees, the perspectives offered by these approaches do not allow to gain a satisfactory insight into iRobot’s case.

Sociologist Adam Arvidsson is one of the scholars that have first developed a theory of brand that associates brands to value creation and emphasises the role of consumers in producing value (2005; 2006; 2007). In his writings, he suggests that brands can function as means of production (2005: 247) that can be used to engender valuable immaterial production as they circulate in the social sphere. In that sense, according to Arvidsson, the role of consumers is key in producing value.

Arvidsson's starting point for analysis is that in recent decades we have been witnessing the emergence of what he names 'informational capitalism', which revolves around a new informational mode of production, where immaterial production supplants material production to the extent that, from a firm's perspective, the latter becomes secondary in terms of importance (2007). Brands, he argues, offer 'an exemplary empirical manifestation of the value-logic of informational capitalism' (ibid.: 9). In fact, 'brands can function as capital' (ibid., 2005: 238) that generates value from consumption-labour, as consumers engage in an immaterial production process. In other words, he claims that consumption is a productive activity, as consumers produce a shared meaning, a social relation or a sense of belonging that 'can work as a context within which goods can acquire (new dimensions of) use-value' (ibid., 2005: 243). These use-values can then translate into monetary value in the form of a 'premium price', i.e. what consumers are willing to pay extra for the branded good in comparison to a functionally similar commodity, or into brand value on financial markets, in terms of share prices or easier access to capital (ibid.: 250). In that sense, immaterial productivity does not depend to a great extent on the direct exploitation of salaried employees; rather, it depends on the capacity to appropriate a 'socially produced surplus' (ibid., 2007: 7). More specifically, he explains,

Value is generated not only through the production of commodities, but also by making commodities circulate in the social and appropriating the results of the productive practices that are thus generated. This way, commodities begin to function as means of production that can be deployed to generate valuable immaterial resources like attention, traffic or “buzz” (Arvidsson, 2007: 15).

According to Arvidsson, brands as we know them today began to develop after the mid 1950s, following the crumbling of ‘marketing’s disciplinary paradigm’ (2005: 243), which up to that moment had aimed at standardising consumer behaviour through advertisement and other means, and had dominated over the previous decades. In the context of a newly emerging diversified consumer culture, marketing developed new techniques that revolved around the concept of brand (2007: 11).

Brand management started both developing as a discipline and giving growing attention to the significance of brands in consumers’ minds (2005: 244). Up to the mid 1950s, most of the use-value of goods derived from pre-established needs and desires. Successively, goods started serving other types of purposes, such as establishing personal identity or social relations (2007: 12). According to Arvidsson, brand management thus aims at managing the productive circulation: unlike disciplinary marketing, it does not attempt to constrain consumers with regard to their desires. Instead, brand management ‘recognises the autonomy of consumers [...and...] aims at defining the contours of what the brand *can* mean’ (ibid.: 245 – emphasis in the original). Its aim is therefore to create “platforms” where autonomous productive interaction can occur in specific ways, a specific context in which consumer action unfolds (Arvidsson, 2005: 190). In Arvidsson's writings, brand management is thus depicted as performing what could be called a *facilitator* function, as it creates the environment in which autonomous consumers create a particular kind of common, be it a shared experience or a common identity. Most



importantly, he asserts, 'brand managers do not intervene, or intervene only very marginally in the production of brand value' (ibid.: 191).

Arvidsson thus emphasises to a great extent the role of consumers in creating value by providing free, i.e. both unpaid and quasi-autonomous, consumption-labour. In order to underpin his claim, he cites eBay as an example of business that benefits from the inputs of its consumer base in generating trust through reviews (ibid.: 247) and Starbucks as an example of consumers contributing to creating a shared experience within a specific environment.

From the perspective adopted in this thesis, the merit of Arvidsson's theoretical contribution lies in its acknowledgement of the need to consider brands from a political economy perspective. However, aside from pointing at the need to consider brands from a broader perspective than in the conventional literature, his theoretical elaboration has only little to offer to this analysis.

First of all, his analysis has a different focus; in his writings, Arvidsson attempts to develop a theory of value in relation to brands, whereas this thesis mainly focuses on the ideological character of brands, as conveyors of specific worldviews. Also, through his theory of value creation, by shifting the attention away from the productive process to the sphere of circulation, he contributes to obfuscating the expropriation of surplus value occurring at the expense of waged labour used in the material production, which is the actual locus of value creation.

Moreover his analysis implies large degrees of consumer autonomy in giving brands a meaning, whereas in iRobot's case it is evident that for the development of the firm's brand, brand management plays a greater role than suggested by Arvidsson's theory. In iRobot's case it is difficult to sustain the argument that brand management

merely provides a platform where autonomous productive interaction can occur, since the meanings ascribed to iRobot's brand are given rather explicitly and form a quite clear and coherent discourse when taken together (see chapters 4 and 5). This is demonstrated by the consistency of the firm's narrative across the years, but also by the links between the key elements of the narrative and the broader discourses present in American society with regards to the military (as demonstrated in chapter 6). Also, the extent to which such productive interaction can be autonomous is questionable in any case, since consumers would not produce shared meanings in a vacuum, unaffected by their environment, which in itself limits the degree of autonomy of consumers to a considerable extent.

Finally, Arvidsson's claim that nowadays immaterial production has become more important than material production does not seem to apply to iRobot's case. Even though iRobot's branding strategy suggests that the firm considers its overarching brand strategy important, given its role in the development of cutting-edge technologies, it is implausible that material production is considered less relevant than the development of the brand.

Business school scholar Hugh Willmott's work (2010) offers another theorisation revolving around brands and their ability to create value. In his article on branding, he makes an analogous claim to Arvidsson's as he attributes central relevance to the labour of unwaged user-consumers in building brand equity in the context of an economy increasingly driven by financial motives, where intangible assets have attained unprecedented importance.

His analysis is premised upon the consideration that 'value' takes on different meanings within particular ethico-political complexes. He conceives of capitalism as a

dynamic ethico-political complex characterised by different phases. In the latest phase, which started with the beginning of the neoliberal era, the brand has assumed ‘a monetized value as an intangible asset’ (Willmott, 2010: 519) in an economic context that places unparalleled importance on financial activity. This is visible, he argues, in cases in which firms are bought at prices that significantly exceed the value attributed to their physical assets (ibid.: 523).

One central focus of Willmott’s theoretical elaboration is the value creation deriving from the use of brands. Willmott adopts a post-Marxian stance as he argues that value is increasingly produced in the sphere of circulation. In fact, in a similar vein to Arvidsson, he asserts that value creation occurs through the labour of unwaged user-consumers, who contribute to building brand equity (2010: 518) that then translates into dividends and capital gains appropriated by shareholders. The Marxist perspective instead conceives of the productive moment as the value-creating activity, disregarding circulation and value-creation that does not occur within an employment relationship (ibid.: 521).

From a Marxist stance, focusing on the sphere of circulation is associated with ‘(bourgeois) analysis’ (ibid.), where the exploitative character of the productive moment is ignored and where the value is conceived of as a reward for the risks associated with entrepreneurial activity (ibid.). Instead, Willmott departs from the assumption that value creation necessarily resides in the employment relationship, and shifts his attention to the contribution of user-consumers as co-producers of brand equity, when they recognise and attribute qualities to the brand. In his analysis, Willmott does nevertheless attribute greater importance to the role of producers in co-creating brand equity than Arvidsson (2005; 2006; 2007). This is clearly demonstrated as he states that ‘[d]ividends and capital

gains enjoyed by shareholders flow, in part, from the labour power of consumers [...] as well as producers (e.g.), who co-create the equity that is monetized' (2010: 521).

Similarly to Arvidsson's writings, Willmott's theoretical elaboration does not offer many insights into iRobot's case. First, his main concern lies with elaborating a theory of value, an aspect that does not lie within the remit of this thesis. Secondly, Willmott also seems to ascribe a considerable level of autonomy to user-consumers in co-creating brand value. His claim that '[c]onsumers are not empty vessels for marketing propositions but active interpreters and evaluators of their relevance and appeal' (2010: 522) suggests a considerable degree of autonomy in user-consumers' efforts to recognise and attribute qualities to brands. However, as was mentioned before the extent to which consumers are effectively autonomous in ascribing meanings to brands is dubious, given the environment within which branding occurs and the role that brand management plays in giving meaning to brands, as is exemplified by the current investigation.

Overall, one can conclude that the contribution made by this strand of critical literature on brands as value creation largely lies in its acknowledgement that brands should be taken into account from a political economy perspective. Apart from this consideration, they do not provide relevant insights in relation to the case examined. They both focus on the development of a theory of value and most importantly tend to attribute only some or no agency to firms developing their brands, whereas iRobot's case clearly shows how the brand is meticulously developed as to reflect specific ideas, ranging from the "security-enhancing" and defensive character of the firm's warfare robots to the endorsement of US foreign policy à la Bush (chapters 4 and 5).

The other strand of critical literature on brands adopts a different approach to branding, as their key focus in relation to brands is not the creation of value; rather, the central concern of this literature lies with the interactions between brands and society.

Sociologists Goldman and Papson's (2006) article on brands mainly focuses on various (negative) effects that ubiquitous corporate branding has at the societal level. From the perspective of this investigation, the most interesting argument advanced by the two scholars is that ever-present corporate branding overall leads to overarching capitalist metanarratives that are conducive to the legitimisation of capital as a whole, as they obscure the underlying practices of capitalism. According to them,

A metanarrative of capital emerges out of the interplay of hundreds, or thousands, of branding campaigns. Though most branding activity seeks to differentiate one firm from its competition, the cumulative 'brand' of capital displays a remarkable consistency of visual signifiers, narrative formulae, and ideological themes (Goldman and Papson, 2006: 345).

Most importantly, they argue, these capitalist metanarratives have a depoliticising effect. On one hand, they obscure the underlying practices at work in globalisation and, on the other hand, they emphasise the ideals of capitalism, a mechanism that in turn significantly contributes to legitimising capital as a whole (2006: 344). Brands thus present a 'vision of the world' (ibid.) in which the ideals of capitalism, such as individualism, free markets and consumption, are emphasised, whereas key practices linked to the process of globalisation that have more obvious political connotations, such as offshoring, are kept out of the picture. In other words, as a whole the narrative presented by corporate branding 'permits the practices of global corporate capital that bring about economic disparity to disappear from view' (ibid.: 347).

Overall, due to their focus on the phenomenon on branding as a whole, Goldman and Papson's theorisation (2006) does not provide the tools to develop an understanding of iRobot's specific branding and marketing strategies. Nevertheless, there is an aspect of their work that is relevant for the current investigation. In fact, through their account of the emergence of capitalist metanarratives, in which they argue that as a whole branding conceals relevant political aspects and instead contributes to the legitimisation of capitalist ideals at the level of society, they emphasise the need to develop a critical approach to branding and its ideological character. This thesis draws on a similar assumption about the ideological character of branding, even though it is centred on a single case, and the need to adopt a critical approach to the study of brands. More specifically, the argument advanced is that iRobot's brand has an ideological character, as it stands for a specific vision of the post-9/11 world based on the endorsement of US foreign policy and the exaltation of the military institution (see chapters 4 and 5), which it conveys and reproduces at the level of civil society.

Leading branding specialist Holt has written extensively on the topic of brands during his past academic career. If one considers the distinction made at the beginning of the section between conventional and critical bodies of literature on brands, it becomes apparent that classifying Holt's writing presents some difficulties. In fact, even though he makes a call for the development of a sociology of brands (2006a; 2006b) and adopts a sociological approach to branding in some of his publications, the tone of other publications suggests that they tend to be written for a 'business school' audience, focused on building successful brands rather than moved by other types of concerns. This can be evinced by the preface to his book 'How brands become icons: The principles of cultural branding' (2004), where he states that the book attempts to unearth

the principles on which established iconic brands have relied with the purpose to develop a language that can be used to build iconic brands (ibid.: xii).

The rationale for including Holt in the critical body of literature on brands is given by his acknowledgement of brands' role in present-day capitalism. In fact, he claims that in recent times the relevance of branding has grown to the extent that it has become a 'core activity of capitalism [and] so must be included in any serious attempt to understand contemporary society and politics' (2006a: 300). Moreover he develops an approach to brands that draws attention to how brands interact with culture at two levels.

Firstly, he claims that the current branding paradigm, i.e. the 'set of principles that structures how firms build their brands' (2002: 80), is characterised by the belief that brands should be offered as 'cultural resources, as useful ingredients to produce the self as one chooses' (ibid.: 83), rather than to impose specific meanings. Holt theorises the existence of a dialectical relationship between branding paradigms and consumer cultures, a concept he uses to refer to the 'dominant mode of consumption that is structured by the collective actions of firms in their marketing activities' (2002: 71). His central argument in that regard is that the emergence of contradictions between the two lead to shifts in both.

In order to corroborate his claim he traces the history of the shift from what he calls the modern to the postmodern branding paradigms and the corresponding consumer cultures. The modern branding paradigm began to develop after the 1920s, following the development of the advertising business, and revolved around marketing specialists having recourse to ideals to brand the products they marketed. Holt refers to it as the 'cultural engineering paradigm' in order to highlight that it was premised on a consumer culture that conferred marketers cultural authority as they embedded meanings

in brands. However, he argues, the cultural authority narrative was accurate in describing the situation until the mid-1950s. At that time, the modern branding paradigm began to crumble, as people started taking notice of the mechanisms firms made recourse to in order to stimulate consumption (2002: 82). The new emerging consumer culture set in motion the coming into being of the postmodern branding paradigm, based on the underlying ideas that branding should renounce its authoritative approach and that nowadays brands are *cultural resources* that consumers can use in order to build their identity.

Secondly, Holt focuses on the interactions between culture and brands. First, he argues that brands can become particularly successful if they draw on existing cultural forms, whereby they become iconic. Second, he states that brands can perform an ideological role, albeit a limited one. Third, he argues that due to their ubiquity and proliferation, brands serve a ‘conservative function’ (Holt, 2006b: 375).

Culture is a central element in Holt’s account of the coming into being of iconic brands, such as Coke, Starbucks and the other brands that have become well-known and enduring cultural symbols (2006b: 357). According to him, brands attain iconic status ‘when they are woven into the most potent ideological currents in society’ (ibid.: 373).

His analysis of this type of brand is based on the assumption that hitherto brand theories have been excessively ambitious in trying to propose universal models applicable to all brands. Such an approach to branding is, Holt argues, both vague and inevitably misleading because they ‘smooth over the heterogeneous ways that brands work’ (2006b: 356). He therefore rejects such an approach and looks at the specific category of what he terms ‘iconic brands’.



Holt draws links between brands and the specific cultural context in which they emerge, in order to establish why certain brands are more appealing and successful than others. He argues that in order to carry out such a study what is needed is a hermeneutic approach, which situates the ‘meaning and brand symbolism in a particular historical context’ (2006b: 359). In his various studies of specific brands, he identifies particular myths that brands build upon when developing their image, e.g. Jack Daniel’s and the gunfighter myth (2006b).

According to Holt, ‘[b]rands succeed in becoming powerful cultural symbols when they tag along on emerging myth markets led by far more potent cultural forms’ (2006b: 374). In that sense, iconic brands are ‘*ideological parasites*’ (ibid. – emphasis in the original), as they take advantage of other cultural forms present in society. But iconic brands also perform an ideological role themselves, although to a limited extent, as they reinforce the meanings and sentiments they rely upon through their ubiquitous presence. Holt specifies that this ideological role should not be exaggerated, for brands rarely manage to manipulate culture themselves. The only American cases he identifies in that regard are Volkswagen (in the 1960s) and Nike (1988-93) (ibid: 374). This type of misunderstanding about the ideological role of brands, he argues, is mostly the consequence of brand critics ignoring the influence exerted by other cultural forms in creating myths.

A further relevant aspect of Holt’s theory of iconic brands is linked to his critique of the impact that these have at the social level. His argument is that iconic brands are politically narcotising with regard to the ideas that they convey, a social effect deriving from their ubiquity and proliferation. In short, through their constant presence, iconic brands play a conservative function (Holt, 2006b: 375).

Among the various theories examined so far, Holt's elaboration on iconic brands is the one that offers the most insightful approach into the current investigation. In his theory, Holt highlights how cultural elements present in the historical context in which brands are developed play a key role for iconic brands. Clearly, his argument bears some similarity with the one advanced in this investigation, as it is argued that the iRobot corporation has built its brand by making recourse to a set of ideas so embedded in American society that they have attained 'common sense status', i.e. the increasingly indistinct division between the civilian and military spheres, casualty aversion and a tendency to construct offensive elements in defensive terms (see chapter 6).

Another relevant aspect of Holt's work is that he emphasises how brands perform an ideological function, even though according to him, this should not be overstated. The fact that he identifies only two brands that have had an ideological function in the history of American brands demonstrates that he thinks of it as a rare development. In this thesis however an important ideological role is attributed to iRobot's brand. By emphasising how robots can keep soldiers out of harm's way on the battlefield, through the narrative on the "security-enhancing" character of its military robots, iRobot is likely to appease some of the concerns of a casualty-averse public and thus contribute to the diffusion of a militaristic approach to foreign policy. If it is believed that soldiers on the ground face lower risks, which is one key concern in the US whenever the possibility of a military intervention is considered, it is plausible that there will be an increased willingness to engage in military missions.

Moreover, Holt makes an argument about the ubiquity of brands standing in the way of a critical appraisal of the ideas that brands convey. Similarly, this investigation argues that the ideas conveyed by iRobot are generally not addressed in a critical manner. However, Holt seems to be concerned with the ubiquitous character of brands,

irrespectively of what they convey. In that sense, his point seems closer to the one made by Goldman and Papson (2006). Instead, in this investigation, the main concern lies with the fact that the ideas conveyed tend to reinforce military ideas and values across society, which in turn has an important impact on democracy and the international order (see chapter 6).

The other main argument made by Holt on the current branding paradigm does not seem applicable to iRobot's case. In fact, as was already pointed out with regard to Arvidsson' and Willmott's work, iRobot's brand is not developed in a way as to offer consumers a great level of autonomy in ascribing meaning to brands. In iRobot's case, the claim that brands are 'less orchestrated by managers than before' (Holt, 2002: 83) is hard to sustain, as the meanings ascribed to iRobot's products are rather explicit. The scope for consumer autonomy in that sense appears to be strongly limited.

As this subsection has demonstrated, the critical literature on brands has more to offer to the current analysis than the conventional literature. However, its insights into iRobot's case remain limited. Most of the theories examined tend to stress the autonomy of consumers in ascribing meaning to brands; this view cannot be reconciled with iRobot's case, as the narrative conveyed by the firm is clearly influenced by predominant ideas present in American society (see chapter 6) and does not leave much scope for consumers to ascribe meanings to the brand in an autonomous way. Nevertheless, the literature plays an important role, as it forcefully asserts the need to consider brands from a different perspective than the ones originating in business schools.

## **2.2. Brands and IPE**

This section addresses the IPE scholarship on brands and argues that brands deserve more consideration in the discipline. This is due to their crucial role in shaping consumption patterns, which in turn are intimately linked to production, a key concern for IPE scholarship. The section will first substantiate the claim that the discipline of IPE has given little attention to brands by providing the findings of a research carried out across two key IPE academic journals and two key book series, aimed at establishing how much attention has been paid to brands. Successively, the section will reflect on the reasons that might explain such scarce interest by drawing an analogy with Comor's considerations on the little attention received by consumption in the field of IPE (2008).

In 2006, in his call for a 'sociology of branding', Holt stated that 'despite its social significance, branding has rarely been subject to concerted empirical examination and theoretical development outside of business schools. [...] the most common academic stance is simply to ignore brands' (2006a: 300). Nearly one decade after this statement was made, Holt's claim still holds true, as brands have not attracted a considerable amount of interest across the social sciences.

Applied to the field of political economy, Holt's claim about brands being neglected is particularly true. As was seen in the previous section, some political economy theories of brands have been developed. However, if we assume the existence of a demarcation between the various disciplines in the field of social studies, leaving aside the necessarily fictitious character of such a demarcation, it becomes apparent that within the specific discipline of IPE, brands have received no analytical attention beyond the mere acknowledgement that they are relevant nowadays.

The critical literature reviewed in the previous section that takes a political economy approach to the study of brands can in fact for the most part be found in journals that are not specific to the discipline of IPE, such as *Journal of Consumer Culture*, which features Goldman and Papson (2006), Holt (2006a; 2006b) and Arvidsson (2005); *Journal of Brand Management*, which features Arvidsson (2006); and *Organization*, which features Willmott (2010). Also, the few scholars that have formulated such theories of brand are not political economists in the strict sense but come from a variety of other backgrounds, such as business, sociology, anthropology and other disciplines in the field of social studies. While this diversity of backgrounds and interdisciplinarity can both lead to the incorporation of insightful perspectives taken from various disciplines, which in turn might have a positive impact on the theoretical enterprise undertaken, the silence of IPE scholars on brands remains nevertheless remarkable.

The silence of the discipline becomes clearly visible in some of the most well-known publications in the field. In order to establish how much attention has been paid to brands by IPE scholarship, two key academic journals, *Review of International Political Economy* (RIPE) and *New Political Economy* (NPE), and two key book series, *Cornell Studies in Political Economy* and *RIPE Series in Global Political Economy* were selected for enquiry. The research was carried out by looking for four keywords that make reference to the realm of branding - brand, marketing, logo and consum\*, in order to include consumption, consumerism and consumer – either in article abstracts (or first page previews) or book descriptions. The search was restricted to keywords for practical reasons: these parameters allow to undertake a search that focuses uniquely on the central themes of the articles or books. The time span covered by the study varies

depending on the journal/book; in general, the enquiry has focused on the past 20 years of journal issues or books, except for those launched successively (see Figure 2.1. below).

Overall, in relation to the volume of publications examined, the findings clearly demonstrate only a marginal interest in brands, and consumption more broadly, over the past 20 years in the discipline of IPE, as defined by its key publications. In fact, brands are referred to only in two articles in NPE. The other keywords also feature only a limited number of times across the various publications examined. It should be noted that even though the interest for consumption remains scarce, the keywords related to the theme of consumption featured more frequently than the others; perhaps this is due to the fact that brands, logos and marketing are associated to the business school realm to a greater extent.

	NPE	RIPE	Cornell Studies in IPE	RIPE Series in GPE
Brand	2	0	0	0
Consum*	14	21	3	3
Logo	2	0	0	0
Marketing	1	3	0	1
Total	<b>19</b>	<b>24</b>	<b>3</b>	<b>4</b>
Total number of journal issues/books	68 issues (1996-2013)	90 issues (1994- 2013)	79 books (1994-2013)	51 books (1998-2013)

Table 2.1. – Brands in key IPE publications

The reasons for the scarce interest in brands in the discipline of IPE are difficult to establish. In this respect, Willmott hypothesises that perhaps the ‘soft’ and intangible qualities of consumer behaviour make branding an unattractive topic for students of political economy’ (2010: 522). Alternatively, he suggests that among social scientists

more broadly, branding might be considered too superficial to deserve close or serious examination (ibid.). In any case, he makes an important consideration that lends support to the claim that branding should be given more attention:

That *No Logo*, a book authored by a journalist-activist, has had such an impact by bringing the ‘new branded world’ (Klein, 2000: Ch 1) into some focus is symptomatic of a popular recognition of branding’s contemporary significance and indicative of a scholarly vacuum. (Willmott, 2010: 522).

Even though the reasons behind the lack of interest in IPE are hard to ascertain, perhaps the silence of IPE can be better understood by making an analogy with consumption and the marginal attention paid to it in the field of IPE. The analogy is premised on the assumption that brands and consumption are two intimately linked elements within contemporary capitalism, as nowadays brands drive consumption patterns to a remarkable extent. Thus, since there has been scarce interest for the institution of consumption to date (Comor, 2008), as is confirmed by the enquiry in key IPE journals and book series (see Figure 2.1. above) it is not all too surprising that brands have also received little analytical attention.

Comor’s IPE analysis of consumption starts out of a similar consideration to the one on which this research is based, namely the lack of analytical attention given to consumption within the field of IPE. To date, he argues, ‘consumption generally is taken for granted’ (Comor, 2008: 2). Adopting leading neo-Gramscian IPE scholar Robert Cox’s claims about consumption being the ‘the motor of capitalism’ (Cox, 1995: 168) and about ‘the motivation of consumer demand [being] indispensable to capitalism’s continuing development’ (ibid.) as a starting point, he asserts that the time is ripe to conceptualise and address consumption as an institution in IPE analyses.

Comor identifies some potential reasons for the little attention that IPE scholars have given to consumption. First, he suggests that it might be due to the fact that it is

often regarded as an individual activity, and thus falls out of the discipline's ontological concern (2008: x).

The second explanation, which mainly holds true for Marxist-oriented approaches, is that there is a tendency to focus predominantly on production, as the 'essential moment in the political economic cycle rather than examin[e] production and consumption (as well as circulation and exchange) as inter-dependent elements of the political economy's production process' (ibid.). One might argue that it makes sense from a Marxist perspective, as according to the labour theory of value developed by Marx, production is the moment in which the surplus value is created and thus the key moment in capitalist reproduction. This point echoes Willmott's (2010), who explained that for Marxists focusing on other moments can be perceived as a distraction, as attention is shifted away from the crucial moment of production, where the expropriation of surplus value takes place. It should be noted, however, that consumption has been an important concern for Marxist thinkers at various times, as was for instance testified by the development of underconsumptionist theories of crisis (for an account of the developments of these theories, refer to Clarke (1993)). In general, the fact that Marxian analysis neglects consumption is problematic. It is in fact necessary to keep in mind that the commodities produced have to circulate and be sold for the circuit of capital to be reproduced, hence the role of consumption cannot be downplayed if one attempts to analyse contemporary capitalism. By extension, brands also deserve attention, as they play an increasingly important role in shaping patterns of consumption. Also, brands deserve attention for reasons that go beyond the fact that they affect patterns of consumption and production. As is shown by this thesis, the relevance of iRobot's brand is linked to its ability to convey ideas that advance a specific worldview (see chapters 4, 5 and 6). The critical approach to branding adopted in this investigation



suggests that brands should be given greater consideration in IPE due to their potential to perform ideological functions.

Finally, Comor hypothesises the existence of a certain unwillingness to embark on the study of consumption because analysing it begs for the inclusion of theories and approaches that IPE researchers tend to be unfamiliar with. In this respect he makes explicit reference to the study of the subject of culture, which, conversely, is what he aims to contribute with his work on consumption (2008: xi). If this holds true for consumption, it is conceivable that it equally applies to the study of brands.

It is noteworthy that even though Comor refers to branding as ‘an essential part of capitalist consumption’ (2008: 72), he does not address brands in greater depth in his study on consumption.

### **2.3. The Visual, PMSCs and Militarisation**

This section offers a review of two bodies of literature that point out, on the one hand, how visual elements, such as images, videos, and video games, can be militarising, and on the other hand, the militarising implications of the marketing of private military and security firms more specifically. Both literatures raise relevant points on which this investigation can build, as one of the core arguments of the thesis is that the narrative circulated by iRobot through various means of communication is militarising.

This section shows that the study of iRobot's case provides a contribution to the literature: iRobot is in fact a military firm but unlike the PMSCs examined in the second subsection, due to its dual character, it can easily have access to a much wider audience. In turn this means that its militarising narratives can reach more people more directly and have an important impact at the societal level.

### **2.3.1. The Visual and Militarisation**

Over the last few decades, critical IR and security studies have progressively incorporated into their analyses visual elements such as images and videos (Hansen, 2015; Lenoir, 2000; Power, 2007; Weber, 2006; 2008; 2014). This is part of a more general trend that has affected various disciplines, which Mitchell labelled the 'pictorial turn' (2011: 69). While the specific foci of the scholars involved in this academic endeavour vary, this literature compellingly demonstrates that visual elements deserve greater attention than they are generally granted by the mainstream literature. From the perspective of this investigation, the most relevant aspect of this literature lies in the emphasis that some scholars place on the militarising potential of the visual elements considered, although it should be kept in mind that images can work both ways, as they can also be used and read as critical interventions into political debates (Hansen, 2015).

Nevertheless, the extent to which the visual, securitisation, and militarisation have come to be seen as related is testified, for example, by the fact that in 2007 the journal "Security Dialogue" published a "Special Issue on Securitization, Militarization and Visual Culture in the Worlds of Post-9/11", which includes articles that address the power of the image and 'recognise the forces at work in contemporary visual culture, which have affected practices of securitization and militarization' (Campbell and Shapiro, 2007: 132).

Cynthia Weber is one of the scholars that have forcefully advocated the inclusion of the visual into the study of IR. According to her, 'much politics is conducted through popular visual language' (2008: 137), expressed through photography, film, and web-

based windows. Among other aspects, Weber focuses on the effects of some types of remediations, i.e. representations of one medium in another, such as television news broadcasts transformed into documentaries or films, and how thanks to the use of both documentary and cinematic techniques, remediations can make the mediated events feel both real and immediate, turning the viewer from an observer into a virtual participant (ibid.: 139). As remediations shift the point of view from the third to the first person, they change 'the temporal feel of the event from past to present' (ibid.: 147). A major issue linked to successful remediation is that it 'mak[es] the past so present, so hyper-immediate' (ibid.: 152) that it diverts the audience's attention away from "the present", standing in the way of a critical appraisal of the contemporary circumstances. Weber uses the example of various remediations of the story of the United Airlines Flight 93 (UAF93), one of the planes hijacked on 9/11, to illustrate how powerful remediation can be. Among the various remediations, she argues that thanks to the use of popular visual language the film "United 93" successfully changes the perspective of the audience and makes them experience the sounds and images of the film as the truth (ibid.: 150). In turn,

by offering Americans a catharsis based [...] on the virtually real immediate experience of USF93, *United 93* unfortunately remediates political responsibility out of America's real present and instead locates it in a cinematically structured, virtually real American immediacy that makes no difficult demands on Americans politically or morally (ibid.: 152 - emphasis in the original)

In other words, all of the events related to the military interventions in both Afghanistan and Iraq are kept at a distance, allowing Americans to sidestep the moral issues entailed by the military response to the attacks. In that sense, remediation and the use of popular visual language can stand in the way of an appraisal of militaristic behaviour.

The importance of film for politics is also asserted in Weber's work on the securitisation of the unconscious (2005). Her core argument in that regard is that the latter can be performed not only in "fact", i.e. US foreign policy, but also, and most importantly, in fiction (film). To develop her argument she draws on "Minority Report", a film based on a futuristic story that critically examines a domestic system of preemptive justice applied in the US by the imaginary Department of PreCrime, released shortly after Bush introduced the Doctrine of preemption in 2002. Her point of departure is that both the Doctrine and the Department of PreCrime claim that securing either the individual or the state is a matter of securitising the unconscious, i.e. of bringing the unconscious into the realm of US security practices (ibid.: 483). In so doing, she argues, they 'articulate a specific (pre)vision of American morality and what I call 'US moral grammars of war' - codes and contexts that structure the meaning of US morality tales about war by grounding them in a specific articulation of the US 'we' (ibid.: 483). While "Minority Report" provides a moral grammar of war that invites the audience to rethink the 'we', and by extension the system of preemptive justice, Weber states that by associating the invitation to rethink this 'we' to a feminine character, there are limits to what this 'we' can become. The female characters are so caricatured through gender stereotypes that 'the film at best sends mixed messages about the feminine and what it wants 'us' to see' (ibid.: 494). Ultimately, the film implies that these female characters secure what is 'traditionally domestic' (ibid.) and that they lack credit for making meaningful moral action.

Along similar lines, Weber also shows how other films, such as "We Were Soldiers" also develop a US 'we', a moral grammar of war, and a path for how to become a moral America/American that echoes the official story about moral America in the wake of 9/11, as presented by the Bush administration (2006).

In addition to films, the literature concerned with the links between visual elements and militarisation has also focused to a great extent on the use of digital technologies for entertainment, simulations and actual warfare. While the military states that there is 'no direct correlation between video games and an increased urge to kill' (Power, 2007: 275), there are various scholars that think that war video games have a bigger impact on people, and as a result on society, than the military like to admit. Leander for instance states that the development of video games 'might be expected to contribute significantly to the "militarisation of visual culture"' (Leander, 2010: 215)

Lenoir is one of the scholars that have addressed the links between the military and video games (Lenoir, 2000; 2003; Lenoir and Lowood; 2005). Building on Eisenhower's notion of the military-industrial complex, he argues that against the expectations that the complex would fade away when the cold war came to an end, the military-industrial complex has reorganised itself more efficiently than ever, becoming the military-entertainment complex (2000: 175). Crucially, 'whereas the military-industrial complex was more or less visible and identifiable during the Cold War, today it is invisibly everywhere, permeating our daily lives' (2000: 175).

Together with Lowood, Lenoir notes that the links between the military and the entertainment industry work both ways (2005). Commercial games have shaped many of the ideas for military simulations. In turn, military simulations have impacted commercial entertainment, as they have provided the content and the technology for computer and video games. This has gone as far as video games using images taken from actual battles, which, they argue, also has an impact on the relationship between digital and physical reality. An example is provided by the commercial game "Doom II", whose code was rewritten by the Marines to include real-world images. In addition to being

used by the Marines, the code for "Marine Doom" was publicly released. In Lenoir's and Lowood's words, the implication is that 'you too can become a military assault commando' (2005: n.a.). In "Falcon 4.0" the weapon modelling is so realistic that reviewers of the game report using actual manuals when operating the weapons. For Lenoir and Lowood, this epitomises not only 'the calculated emergence of a military-entertainment complex but also [...] the fusion of the digital and the real happening around us' (ibid.).

Lenoir further develops the idea of a fusion between the digital and physical reality, as he states that our channels of experience are remodelled by the new media. The fact that we spend increasing amounts of time in virtual space, he argues, is going to affect how we understand both materiality and reality (2003: 289-290). This leads him to speculate that a posthuman state, characterised by the lack of separation between physical existence and computer simulation, might well come into being, as a result of technological advancement.

In his work on "virtuous war" and what he calls the Military-Industrial-Media-Entertainment Network (MIME-NET) (2000; 2001), Der Derian offers a critique of the implications deriving from the use of new technologies in relation to contemporary warfare and how the latter is perceived as a result. He focuses particularly on virtual technologies, used both for training purposes and to fight actual wars. According to him, due to the virtualisation of violence coupled with 'a new ethical imperative for global democratic reform' (2000: 772), war has gone from being virtual to being virtuous. This is also linked to the fact that the representations of war offer a vision of clean, bloodless conflicts (ibid.), a vision that however, he states, could not be any more deceitful. Der Derian is also critical of the role played by the MIME-NET, a notion he uses to refer to

the military-industrial complex as identified by Eisenhower (1961) with the addition of both the media and entertainment industries. Once the US military realised these industries' ability to affect mass consciousness, he argues, they were used in order to influence the public, in line with the military's interests (Der Derian cited in Stavrianakis and Selby, 2013: 67). As he rightly points out, what is particularly worrying is the belief that the use of these new technologies engenders. In Der Derian's words, a major issue lies with the fact that 'new technologies are also creating new virtual theologies, the most dangerous one being the belief that virtuous war can supernaturally solve the most intractable political problems' (2001: 220).

Power's work on digital war games (2007) explores the links between the US military and video games, together with the impact that the latter have on the militarisation of American popular culture and in shaping popular understandings of geopolitics. In Power's view, digital war games represent a powerful medium to explore the ways in which visual culture can be employed to both justify and legitimise US foreign policy (ibid.: 273-274). According to him, the narratives on the US and its foreign policy that these digital games convey, largely through the use of images, are particularly important in manufacturing consent. *America's Army*, the official US Army game and one of its most successful recruiting tools, is used to illustrate how realism is used selectively to bring across specific messages in line with the US Army's interests. For instance, even though the games does not explicitly name the enemy, there are clear references to the Afghan landscape (ibid.: 281). Players can also select their character from "real" soldiers that have been engaged in recent US interventions. At the same time, however, realism is abandoned when it comes to injuries and death, e.g. in the games dead bodies simply vanish. He concludes that digital war games present 'a clean, sanitized and enjoyable

version of war for popular consumption, obscuring the 'realities', contexts and consequences of war' (ibid.: 274).

Finally, in his article on the relationship between the war and home fronts, Shapiro focuses on various montage techniques to show how these influence perceptions on the locations and presence of war (2011). His core argument in that regard is that the boundaries between the two fronts are becoming increasingly blurred, largely due to the role played by media technologies:

I came to appreciate that the home front is now more than ever connected to the war front [...] because of the documentary and fictional media that enter the home, because some "warriors" use satellite-assisted media to fight remotely from their home, and because modern technologies bring the war home, sometimes instantaneously, as soldiers communicate with their families, even in the very moments when they are facing or deploying live fire (Shapiro, 2011: 124).

In addition to his point on the domestic and war fronts becoming increasingly blurred, a particularly interesting aspect of Shapiro's article is his discussion of an exhibition by Martha Roesler. The exhibition features photomontages showing commodity-saturated domestic interiors in advertisements alongside violent warfare moments, which are thereby brought into the domestic sphere. For instance, one photomontage shows a home with people comfortably seated in patio chairs watching tanks. With regard to this type of critical art, Shapiro argues that 'the juxtapositions of the commodity-saturated domestic interiors with war scenes [...] have an unsettling effect that must engender reflection on the ways in which everyday domestic life is politically insulating' (ibid.: 117). Shapiro reads these images as articulating the artist's critical perspective on the distracting character of entertainment and commodities, as they distract people from the violence happening globally because of their pervasiveness in the mediascape. While this reading is



certainly compelling, and most likely reflects Rosler's intention, it is interesting to note that iRobot has used a similar type of photomontage on the homepage of its website, e.g. showing a soldier on the field alongside a woman holding a child in a domestic environment, although presumably it has done so for marketing purposes and not to engender a critical response on the part of the viewers. Rosler's and iRobot's photomontages differ in that iRobot does not integrate the war image into the home but rather puts the two scenes on the same level.

Overall, the literature reviewed shows that there is agreement among various scholars that visual material can have a militarising and securitising character. In general, the argument about the need to assign greater weight to the visual when studying politics than mainstream studies do is compelling, as the visual does have an impact on how people think and understand political issues. Nevertheless, it seems that a more nuanced approach, which also assigns weight to the textual in shaping people's ideas, might be desirable, particularly since, as Rose points out, the visual is often accompanied by some form of text (2001: 10). In this investigation, studying only the visual elements involved in iRobot's construction of its self-image would leave out crucial aspects of the company's narrative.

### **2.3.2. PMSCs, Marketing and Militarisation**

In recent years a number of scholars have studied the marketing efforts undertaken by both PMCs (Chisholm, 2014a; 2014b; Joachim and Schneiker, 2012a; 2012b; 2014) and PSCs (Berndtsson, 2012; Leander, 2005; 2013) and their implications for security and militarisation. From the point of view of this investigation, these studies

are relevant for several reasons. First, they point out how this marketing can be militarising. Second, they highlight how PMCs deliberately attempt to influence how they are perceived both within the security industry and by the broader public, largely to get away from an infamous reputation and to be perceived as legitimate. Finally, they provide valuable methodological insights into the ways in which the marketing of these firms can be analysed.

Amanda Chisholm's work (2014a; 2014b) points to the relevance of marketing efforts in the private security industry in building the Gurkha's identity along racialised and militarised lines, as companies present them as being naturally endowed with martial qualities (2014a: 32; 2014b: 359). She focuses on the Gurkha as a marginalised type of contractor (2014b: 353), in comparison to the typical understanding of military contractors as white and Westerner (Higate, 2002; Joachim and Schneiker, 2012b). Crucially, she argues, these marketing efforts play a role in constructing the image of the Gurkhas in the industry, but also in the way these contractors view themselves.

Chisholm explains how the representation of Gurkhas as martial men within Western and Nepalese imagination was largely brought into being through an imagery of the British Empire (2014b: 355). The notion of martial men revolved around the idea of a 'martial race warrior', which was linked to the increasingly held belief that some populations were naturally more apt for military labour. It soon became part of a colonial strategy aimed at constructing an ethnicity in which the military character was an integral identifying feature (2014a: 31) in an attempt to 'create trusted indigenous soldiers' (2014b: 355) that would cater to the needs of the Empire.

The representation of Gurkhas as martial men persists to present day, Chisholm argues, largely thanks to the marketing efforts of PMSCs, which are aimed at reinforcing

this understanding (2014b: 357). For instance, on the websites of two PMSCs offering Gurkha labour, they are described in terms of their martial values. 'Security companies market Gurkhas as highly esteemed contractors who are an ideal solution to expensive Westerners' (2014a: 37). Gurkhas are both seen as particularly desirable on the open market but, as a result of this image of 'fierce warriors', they also perceive themselves as being part of a martial race and as having martial qualities that set them apart from civilians (2014a: 31-33). Some of them adopt martial logics to the extent that in understanding their role within the industry, they see being Gurkha more as a calling than an individual choice (2014a: 38).

Overall, in Chisholm's account, it can be seen how the marketing of the Gurkha's identity is militarising, as it affects both their self-perception and the way in which others see Gurkhas, namely as endowed with some natural predisposition for military matters.

Some scholars focus to a great extent on how PMSC marketing constructs the companies' image in ways that reflect an attempt to distance themselves from the conventional mercenary figure whose interests are driven by personal gain.

Joachim and Schneiker focus on the ways in which PMSCs try to bolster their image and present themselves as legitimate, as they attempt to move away from the association with mercenaries (2012a; 2012b). This endeavour, they note, is largely motivated by the fact that a good reputation is generally what secures contracts (2012a: 496) but also by the number of scandals that have occurred in the industry (ibid.: 506; 2012b: 369). Overall, it seems that the efforts made by PMSCs have paid off, as 'perceptions of the illegitimacy of PMSCs seem to be less important now than they might have been when the industry emerged' (2012b: 366).

Joachim and Schneiker' studies of the self-representations of PMSCs are based on a discourse analysis of written text and images retrieved on the companies' website homepages (2012a, 2012b, 2014). These are seen as key 'instruments through which PMSCs can shape and influence their public image' (2012b: 377); they offer relevant insights into how each company tries to distinguish itself from competitors.

The two scholars identify various ways in which PMSCs try to distance themselves from mercenaries and gain greater acceptance. In one of their studies, they argue that 'most of the companies [they] analyse present themselves on the one hand as highly trained professionals and on the other as ethical hero warriors' (2012a: 501). Conversely, mercenaries are depicted as 'the deviant other' (ibid.: 505).

Another way in which PMSCs distance themselves from mercenaries is by presenting themselves as the 'new humanitarians' (2012b: 367). This is achieved through the appropriation of the language typically used by actors that are already regarded as legitimate, such as non-governmental organisations (NGOs), when they present their professed goals, e.g. make the world a better place (ibid: 378). The fact that they are able to do so is linked to the ambiguity of the notion of humanitarianism, which allows them to appropriate the language of humanitarian actors, cherry-picking the elements that best meet their needs as they construct their self-image. The consequences of these practices are wideranging, as PMSCs presenting themselves as 'new humanitarians' might contribute to blurring the boundaries between civilian and military missions. 'PMSCs not only boost their own image but also transport a certain idea of what constitutes humanitarian actors and activities' (ibid.: 387), which, they argue, might lead to the militarisation of humanitarian services.

In addition, Joachim and Schneiker also argue that PMSCs bolster their image by combining different identities. As they 'discursively draw[...] on values and claiming

capabilities generally associated with the military, the business world and the non-profit humanitarian sector, respectively, companies construct an image to which their potential clients [...] can relate' (2014: 247), but also an image that distances them from competitors and the mercenary type of PMSC.

Overall, their work offers particularly relevant insights for the current investigation, as their enquiries emphasise the relevance of companies' homepages in the way PMSCs construct their self-image and how their self-representation can have a militarising effect. Additionally, they also focus on both discursive and visual elements in their analyses. Nevertheless, iRobot's case differs in an important way from Joachim and Schneiker's studies: since these two scholars focus on firms involved in the provision of military services, the narratives that these companies convey with their websites are likely to target a narrower audience than iRobot's, a company that is increasingly present in everyday consumer markets. This is not to say that iRobot's narrative is more consequential, but merely that iRobot's narrative is more likely to reach the masses in the US than PMSCs.

Leander focuses on the implications of the marketing of both military and security companies. One of the arguments she makes is that the emergence of PMCs has played a role in the re-militarisation of security, which has occurred as a result of a general process in which security expertise is increasingly defined in a military and technical fashion (2005: 819) and security issues as matters of managerial efficiency and technical ability. Security debates, she argues, have shifted from the public realm into a sphere where it is the executive, the military, the secret services and PMCs who decide how issues are framed and addressed (ibid.: 820), as opposed to governmental and civil society. PMCs have gained this power as they have managed to market themselves as

competent and effective, largely in contrast to the public sector that they depict as inefficient (ibid.: 822-823).

Leander also addresses the implications of the web-marketing of commercial security company Control Risks (CR) (2013). She makes two arguments in that regard. Firstly, the company's marketing limits the space for acts of citizenship, understood as those acts through which the right to have rights is claimed (ibid.: 99). While through its services CR appears to loosen the conventional link between the state and the right to be safe/protected, Leander highlights how this can only occur for those endowed with the necessary resources that allow them to become clients. Similarly, CR further reduces the scope for acts of citizenship through the company's pledge to act within the legal framework of the state in which they operate, limiting the potential for contestation of laws and regulation, which tends to be a core aspect of acts of citizenship.

Secondly, Leander maintains that CR's marketing co-constitutes a context in which the likelihood of successful de-securitisation is reduced (ibid.: 109), which stands in the way of issues being conceptualised as not being about security and them becoming repoliticised (ibid.: 108). This occurs through the diffusion and consolidation of security expertise, as presented by the company. As a result of the decentralisation of the management of insecurity and risk, contestation cannot be directed at a well-defined entity. Similarly, contestation becomes harder to articulate due to security expertise being presented as more solid/scientific, e.g. through the use of technological models. As Leander stresses, 'in the process of asserting its expertise, CR draws on, and feeds into, the consolidation and establishment of private sector self-sanctioned expertise' (ibid.: 107).

Berndtsson's work on PSCs partly echoes Leander's as he argues that as these companies market their services, they provide specific images of professional security expertise, as well as particular understandings of the world and of security issues (2012). Within a context in which there is an increasing reliance on private security providers (ibid.: 304), this becomes of great concern, particularly with regard to PSCs' ability to influence political agendas and move competence away from the public sphere to the private one in the definition of security matters. Given this increased use of PSCs, together with the fact that images of expertise affect the influence of PSCs, Berndtsson maintains that it is important to understand how PSCs present themselves, which can be done through an analysis of their marketing efforts. The picture that emerges from the analysis of PSCs' marketing, he concludes, is a complex one, as PSCs develop their self-image in different and contradictory ways, depending on whether they are constructing their "public" or "professional" self-image. While in some cases a company will tend to emphasise its military character, in other situations the same firm will attempt to obscure it, for instance tying its image to the business world or trying to emphasise the humanitarian dimension of its work instead.

Overall, Leander and Berndtsson persuasively demonstrate that marketing in the security industry can be highly consequential. This even applies to marketing efforts in the case of 'commercial security at its most banal and innocuous, as captured through CR's marketing' (ibid.: 109). While these authors uncover crucial ways in which these companies have an impact on how security is understood in a society, similarly to what I argued with regard to Joachim and Schneiker's work, the narratives of these firms are unlikely to reach large sections of American society in a direct manner in an everyday

setting, unlike iRobot's narrative, which is conveyed in society through a variety of channels.

## **Conclusion**

This chapter has provided an overview of various bodies of literature on brands and on the implications of visual elements, both in general and as used in PMSCs' marketing efforts, in the generation of militarism and in the definition of security issues.

The literature on brands has shown that overall the existing literature provides only limited insights into iRobot's case. This is particularly true for the conventional literature, due to the fact that it adopts a narrow approach to branding. The body of literature adopting a critical approach to branding has offered more relevant insights into the case examined. Firstly, it adopts a broader scope than the conventional literature, as it points to the need to consider branding within the broader context within which it takes place, namely contemporary capitalism. From the perspective of this investigation, Goldman and Papson (2006), and Holt's (2006b) work present the most relevant theoretical elaborations, as they both highlight the ideological function performed by branding, even though they focus on different aspects. In particular, Holt (2004) offers a theory that considers many of the aspects addressed by this enquiry, despite some differences in the ways in which brands are thought to play a role at the societal level.

Overall, however the section on brands has shown that the questions asked by this investigation cannot be addressed adequately by the existing literature on brands. Therefore, the chapter has suggested the adoption of a critical approach to the analysis of iRobot's brand, which situates the brand within the historical context, focuses on the



relation between brand and society, and analyses the specific ideas conveyed by the brand.

The second section of the chapter has demonstrated that the visual plays an important role in generating militarism and in shaping understandings of security matters. This has been shown by using the work of various scholars, some of which make this point by investigating the marketing efforts of PMSCs and the impact that these have. These sources are relevant both from a methodological perspective, as they explain how they investigate PMSCs' efforts to build their self-image, and in terms of their findings, as they point out the militarising implications of the narratives advanced by PMSCs through marketing. Most importantly, they also help us to understand how iRobot deserves attention, due to what differentiates it from the other companies examined by the literature. Unlike these other PMSCs iRobot uses its brand and not only marketing to construct its self-image; the brand is a way through which the firm emphasises its military character and draws links to the military realm. Additionally, unlike the other companies investigated by the literature on PMSCs' marketing, it targets individual consumers buying domestic everyday products and is therefore likely to have direct access to a broader audience when disseminating its militarising narrative. This point is particularly relevant with regard to the argument made on the feedback loop between common sense, iRobot and militarisation.

## **Chapter 3 - Research Design**

### **Introduction**

This chapter aims at elucidating the overall logic guiding the investigation of iRobot's branding and marketing practices. The core aspects of this investigation's research design are the adoption of a case study approach, inductive logic, the method of theory-building process-tracing, and a semiological analysis of text and images inspired by Gramsci and Barthes.

This chapter addresses each of these components of the study with the purpose to provide clarity on the various steps undertaken throughout the investigation. To begin with, the first section discusses the research puzzle and presents the core research question, specifying that the kind of logic entailed by the formulation of the question is inductive, which implies a move from the specific to the general, from observations/findings to theory (Bryman, 2016: 23; Pierce, 2008: 32).

The chapter then explains that the investigation of iRobot's branding and marketing constitutes a case study (Bennett and George, 2004: 5; Yin, 1981: 59; 2003: 13), although in the first place the investigation has arisen due the peculiar features that characterise the case and not because iRobot was understood as an instance of a broader phenomenon. Nevertheless, the case is seen as offering the opportunity to further develop our understanding of the role and place of military firms in contemporary US capitalism. It is also understood as an entry point into understanding some aspects of the way in which large sections of the US public think about the military.

The third section introduces theory-building process tracing, an analytical tool that seeks to build a generalisable theoretical explanation from empirical evidence (Beach and Pedersen, n.a) and focuses on causal mechanisms as the basis of explanations (Bennett and Elman, 2006: 456).

Successively the chapter reconciles the empirical and theoretical sections of the thesis, explaining what thinking in terms of Gramsci's and Barthes's concepts does for the study, how the concepts of common sense and myth are operationalised, and why these concepts are the most suitable to investigate issues of language, imagery, and militarisation, in comparison to discourse analysis.

Finally, the chapter takes the reader through the various steps of the analytical strategy, explaining the logic underlying each one of them. It concludes with a discussion on the workings of the 'feedback loop' between common sense, myths, iRobot, and militarisation, aimed at explaining how the everyday use of language and images can play a role in fostering militaristic attitudes in US society.

### **3.1. The Puzzle**

The investigation has arisen from the observation of the branding and marketing strategy of prominent civil-military company iRobot. The initial interest for the firm's practices emerged following the realisation that the website it uses to advertise its domestic products abounds with language and images that heavily emphasise the military character of the firm and its links to the US troops, and that promote US military missions. In particular, the use of the same brand for the firm's two ranges of products, i.e. the domestic and the military ones, is perceived as a clear attempt on the part of the firm to tightly link its image to the military realm. These practices suggest that iRobot's

branding and marketing specialists believe that insisting on the firm's military character when advertising its domestic range engenders a positive response from the public. Considering how other companies producing both civilian and military products tend to distance themselves from the military sphere when they develop their self-image for civilian consumers, e.g. Siemens has separate websites for its civilian and military ranges and does not emphasise its military character, and in light of the rise of ethical consumption, iRobot's branding and marketing practices are seen as constituting an empirical puzzle.

Upon deeper reflection the firm's strategy also seems worth investigating due to both the potential implications deriving from the messages conveyed and the rapidly expanding use of its various products. First, the firm conveys political messages, for instance with regard to the endorsement of US military involvement in conflict. The promotion of US military missions becomes particularly salient when considered in conjunction with the actual contributions made by iRobot's military products on the battlefield. By providing the material means through which American troops can be kept safe, iRobot can concretely increase the appeal of military interventions, rendering a militaristic foreign policy easier to justify. Concurrently, thanks to the success achieved by its domestic products and its involvement in educational programs, iRobot can convey these messages on a large scale at the societal level, which in turn could further bolster militaristic attitudes in US society. iRobot has established itself as a market leader in consumer robotics, ranking among Forbes's top 100 "America's Best Small Companies" (Forbes, 2014). Furthermore, there might also be reason to believe that integrating the technologies used for military robots into domestic ones might impact the consumers' stance toward the military in positive ways, due to the benefits that they might gain from them. Such a claim has been made with regard to the integration of

computer technology into entertainment, which according to Hall 'helped fuel consumers' economic and social support for the arms industry' (2006: 10). Overall, the impact that military firms like iRobot can have in American society, for instance as the company promises less casualties among US soldiers, and by extension on the conduct of US foreign policy, provides a strong rationale for investigating the firm's practices in greater depth.

In order to address the puzzle presented by the firm's branding and marketing strategy, the core research question guiding the investigation is formulated as follows: 'What makes iRobot's use of military elements in its branding and marketing strategy successful in the US market?' The strategy is considered successful, as iRobot has managed to establish itself as a market leader in consumer robotics, and due to the fact that its practice of emphasising the military character has generally not been questioned by civil society groups concerned about the presence of military companies in consumer markets.

The logic of inquiry adopted to carry out the study is inductive, which is motivated by the puzzle-driven nature of the study. This type of reasoning implies that by taking empirical observations of the phenomenon investigated as the starting point of analysis it is possible to infer broader, more generalisable propositions or theories from the phenomena studied (Clift, 2014: 78). The research process starts with empirical observations, using 'detailed readings of raw data to derive concepts, themes, or a model through interpretations made from the raw data' (Thomas, 2006: 238). The aim is to identify patterns and regularities, 'allow[ing] research findings to emerge from the frequent, dominant, or significant themes inherent in raw data' (ibid.). Following the identification of patterns and regularities in the data collected, the study proceeds to

make a generalisation and ultimately arrive at a theory about the phenomenon examined. As Hay puts it, 'theory [...] logically follows observation and generalisation' (2002: 30).

### **3.2. The Case Study Method**

This project also constitutes a case study, as iRobot is considered as a case of private military firm acting within the context of contemporary American capitalism. The case study is understood as 'an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident' (Yin, 1981: 59; 2003: 13), but also as 'the detailed examination of an aspect of a historical episode to develop or test historical explanations that may be generalisable to other events' (Bennett and George, 2004: 5). Combining these two definitions implies that the thesis emphasises the role of context for the analysis but also that the study assigns relevance to the findings beyond the case examined; the ambition is to say something that can be relevant for a broader population of cases (Gerring, 2006). The expectation in that sense is that studying iRobot's case will lead to propositions that might be applied to other private military firms operating in the US. The study starts with the analysis of iRobot's branding and marketing practices, and then seeks to develop an explanation for this social phenomenon by drawing links to the social context within which iRobot's branding and marketing operates.

The use of the case study method requires several clarifications, especially since it is a method that is often misunderstood even among its advocates (Gerring, 2004). First of all, a case study is to be understood as 'a particular way of defining cases, not a way of analysing cases or a way of modeling causal relations' (ibid.: 341). Case studies are

therefore distinct from analytical strategies, i.e. the techniques and procedures adopted to analyse the data collected. Also, it should be highlighted that the notion of case study is not synonymous with qualitative study; rather, a case study can involve qualitative data only, quantitative, or both (Eisenhardt, 1989: 538; Bryman, 2016: 60-61; Yin, 2003: 14).

It is useful to think about the case study in terms of the objective that the study aims for. Among many of its advocates the case study is frequently understood as an enquiry whose analytic objective is larger than the specific case investigated (Gerring, 2006: 707). It should therefore not be mistaken for a single-outcome study (ibid.) or what Levy (2008) defines as an idiographic case study, i.e. in-depth studies that aim at explaining a single case only, 'as an end in itself rather than as a vehicle for developing broader theoretical generalisations' (ibid.: 4).

Instead, many scholars define a case study as 'an in-depth study of a single unit (a relatively bounded phenomenon) where the scholar's aim is to elucidate features of a larger class of similar phenomena' (Gerring, 2004: 341; Flyvbjerg, 2006; Levy, 2008: 2; Seawright and Gerring, 2008: 296) and where a case is defined as a single instance 'of an event or phenomenon' (Odell, 2001: 162; Eisenhardt and Graebner, 2007: 25) or, put differently, 'of a class of events' (Bennett and George, 2004: 17; Levy, 2008). A case study is therefore a 'well-defined aspect of a historical episode that the investigator selects for analysis, rather than a historical event itself' (Bennett and George, 2004: 18).

With regard to this investigation it should be highlighted however that while the ambitions of the research are to make propositions beyond the case examined, the case was not specifically selected *as an instance* of a broader phenomenon. The research is puzzle-driven and the case was not chosen because it is representative of a well-defined group of cases that was identified prior to the investigation, but rather due to its peculiar features, i.e. the fact that it strongly emphasises its military character through its brand

and marketing, unlike other firms that produce both for the military and for consumer markets, e.g. Siemens. While selecting cases for comparative purposes entails issues commonly referred to in terms of selection bias (see Levy, 2008: 8), the literature agrees that this does not apply for process tracing within case studies since they do not involve comparisons and follow a different inferential logic (ibid.).

While the conventional understanding of case studies outlined above is valuable and relevant, the emphasis on the context added by Yin's definition (1981; 2003) is considered particularly significant for the purpose of this thesis. In his words, researchers 'would use the case study method because [they] deliberately wanted to cover contextual conditions - believing that they might be highly pertinent to [their] phenomenon of study' (Yin, 2003: 13). This is the logic adopted in this investigation, which is based on the assumption that iRobot's marketing and branding specialists have developed their strategy based on their beliefs about the prevailing stance toward the military sphere in American society. If the branding and marketing specialists had thought that large sections of American society are hostile to the military, they would most likely have chosen a different strategy.

In the literature, the relevance of case studies has frequently been downplayed, if not entirely dismissed (Yin, 2003: 9). However there has been a growing amount of scholars that have asserted the method's relevance, particularly for purposes such as theory development due to the closeness to the empirical data (Eisenhardt and Graebner, 2007: 25), documenting processes (Odell, 2001: 169-171), and examining the operation of causal mechanisms (Bennett and George, 2004: 19; Levy, 2008). A common concern is that case studies provide little basis for generalising, particularly when a single case study is used (Yin, 2003: 10). The key aspect that needs to be kept in mind however is



that case studies are 'generalisable to theoretical propositions and not to populations or universes' (ibid.). As Eisenhardt and Graebner explain, developing theory from case studies entails using one or more cases to build 'theoretical constructs, propositions and/or midrange theory from case-based, empirical evidence' (2007: 25). Unlike in statistical studies, where the researcher's goal is to enumerate frequencies, with case studies researchers aim at expanding and generalising theories (Yin, 2003).

Furthermore it should be highlighted that some of the critiques raised against case studies, such as the lack of rigor and researcher bias when carrying out the investigation, also apply to other research strategies (Yin, 2003; Flyvbjerg, 2006: 19), e.g. the fact that the formulation of survey questions in questionnaires depends to a large extent on the researcher's understanding of the issue examined is a frequently cited example of how researcher bias can affect investigations (Neuman, 2014). Instead, some argue that the close proximity to the data in case studies has a disciplining effect, as it pushes researchers to be "honest" (Eisenhardt and Graebner, 2007: 25).

In an attempt to explain when using a case study can be useful, the literature develops various typologies of case studies. Yin draws a distinction between exploratory, descriptive and explanatory case studies, even though he stresses that the distinction is not necessarily always sharp between them (Yin, 2003: 4). Among the three types, iRobot's case would fit the explanatory category, as it attempts to establish a causal link between the fact that the firm's branding and marketing strategy is so successful and features of American society. In his discussion on the three types of case studies, Yin also makes a relevant point from the perspective of this investigation, as he states that case studies addressing questions that are explanatory in nature 'deal with operational links needing to be traced over time' (2003: 6). Although Yin does not refer explicitly to

process tracing, this quote suggests that according to him this analytic tool is well suited for the explanatory type of case study.

A further distinction can be found in Levy (2008), who differentiates between the typology of case studies and research designs. The typologies are based on the case study's purpose; a case study can be idiographic, hypothesis-generating, hypothesis-testing and a plausibility probe. Following this typology, iRobot's case would seem to best fit the hypothesis-generating type. This kind of case study is characterised by its aim to develop generalisations beyond the data examined. Levy adds that in this type of case study the proximity and familiarity with the data places the researcher in a good position to identify explanatory and contextual variables, and causal mechanisms, pointing to the usefulness of process tracing (ibid.: 5-6). He stresses that however rather than contributing to theory itself, these case studies contribute to the process of theory construction (ibid.: 5-6).

The notion of hypothesis-generating case study is also found in Odell (2001), alongside with other research designs that he identifies. These are the descriptive case study, the preliminary illustration of a theory, the disciplined interpretive case study, the theory-confirming, the theory-infirming and the deviant case studies. However in his article Odell states that a case study motivated by any purpose can become hypothesis-generating (ibid.: 165), which makes this category less specific than in Levy's typology (2008). Odell also acknowledges that sometimes reference is made to "process-tracing case study", which, he argues, tends to be confusing as virtually every case study involves documenting some dynamic process; process tracing is best understood as a 'technique involved in writing almost any case study' (Odell, 2001: 167).

Considering the various types identified by Odell, the most relevant for this investigation is the disciplined interpretive case study, which 'interprets or explains an

event by applying a known theory to new terrain' (2001: 163). In other words, theory is extended to account for a new event. Odell stresses that there is a key issue associated with the disciplined interpretive case study, due to the fact that most events are consistent with multiple interpretations. The risk is selective reconstruction of the event to support a specific theory. Odell does however point out that the risk can be minimised by considering and refuting alternative theories and adding explicit counterfactuals arguments. These can be the result of mental experiments, in which the researcher asks what difference it would have made if 'factor C had taken a different value' (ibid.: 164), or in other words the hypothesised cause had not been there. One should therefore 'spell out the most plausible chain of reasoning to a conclusion about what would have happened' (ibid.). The same point is also made by Gerring, who states that 'the analysis of causal relationships hinges on the counterfactual assumption - that without X (or more or less of X), Y would be different' (2004: 350). In a similar vein to Odell, Gerring suggests that thought experiments can be used to investigate this assumption. In iRobot's case, a counterfactual assumption would be that in a social context characterised by hostility toward the military, iRobot would have developed its a branding and marketing strategy along different lines.

Overall, the literature reviewed shows that there are multiple ways to understand case studies, depending on the objective of the research. Various authors agree that case studies can be used to build causal explanations and for theory-building purposes. These sources also highlight the compatibility between case study research aimed at the development of theoretical propositions and the use of process tracing, which is the combination adopted in this investigation. The chapter therefore turns to the use of process tracing as an analytical tool.

### **3.3. Process Tracing**

Process tracing is a widely employed tool of qualitative analysis that can be aimed at testing theory, building theory and explaining an outcome (Beach and Pedersen, 2011). The variant used in this investigation is theory-building process tracing, which attempts to build a theoretical explanation from the empirical evidence of a specific case and results in a systematic mechanism being theorised (ibid, 2011; 2013).

While process tracing has been around for several decades, in recent years there has been a remarkable amount of research methods publications that have dealt with it, attempting to clarify what it is about and how it should be done (George and Bennett, 2004; Checkel, 2008; Vennesson, 2008; Collier, 2011; Beach and Pedersen, 2013a; 2013b; Falleti and Mahoney, 2015; Mahoney, 2015; Bennett and Checkel, 2015). This surge in attention is mainly due to the fact that several of its proponents find that many studies employing this method do so without being clear on what it actually is and without being systematic enough (Beach and Pedersen, n.a.; 2013: 2). As Mahoney puts it, 'its specific procedures are often carried out informally and without a high level of transparency' (2015: 201). As a result, it frequently 'lacks systematization of technique and explicitness of execution' (ibid.). In a similar vein, Collier argues that 'frequently it is neither adequately understood nor rigorously applied' (2011: 823). These issues have serious implications with regard to the quality of scholarly work produced using this tool, which explains the numerous attempts to clarify what it is and what it entails and the need to be as specific as possible when adopting this technique.

In the literature process tracing is defined as an analytical technique widely used with case studies. Mahoney describes process tracing as a 'set of procedures for formulating and testing explanations with case studies' (2015: 200). The compatibility

between process tracing and case studies is also highlighted by Odell (2001: 167). The strength of the technique lies in its ability to allow researchers to make 'within-case causal inferences about causal mechanisms based on in-depth single case studies that are arguably not possible with other social science methods' (Beach and Pedersen, 2013: 2).

Understanding what process tracing is requires us to consider what it should include. According to Beach and Pedersen (2013) there must be an outcome (i.e. the effect under investigation), a cause that is either known or hypothesised, and the causal mechanisms that link cause and outcome. Causal mechanisms are theories about how and why social phenomena occur, and they are conceptualised as being constituted of a number of parts. In turn, each part is made up of entities (individuals, groups, states, or structural factors) that engage in activities (ibid.: 39). What process tracing does is unpack the causal mechanisms that lead from the cause to the outcome examined, pointing out which entities act and what they do.

Vennesson further elucidates what process tracing is about as he distinguishes process tracing from narratives:

In general, process tracing differs from a pure narrative in three ways [...] First, process tracing is focused. It deals selectively with only certain aspects of the phenomenon. [...] Second, process tracing is structured in the sense that the investigator is developing an analytical explanation based on a theoretical framework identified in the research design [...] Third, the goal of process tracing is ultimately to provide a narrative explanation of a causal path that leads to a specific outcome (2008: 235).

Process tracing can be employed either inductively as a way to develop theory or deductively with the aim to test theories. Considering the overall aim of this investigation, which is to identify what makes iRobot's branding and marketing strategy resonate with large sections of the US public, process tracing is used in the former sense.

This study thus employs theory-building process tracing, a technique that 'seeks to build a generalisable theoretical explanation from empirical evidence, inferring that a more general causal mechanism exists from the facts of a particular case' (2013: 3). As Beach and Pedersen further explain,

theory-building process-tracing starts with empirical material and uses a structured analysis of this material to induce a plausible hypothetical causal mechanism whereby X is linked with Y. [It can be used] when we know an outcome (Y) but are unsure about the causes (X) [...] The analysis first traces backward from Y to uncover a plausible X, turning the study into a X-Y-centric analysis (ibid.: 182).

Beach and Pedersen, together with Vennesson, provide us with important guidelines on how to develop a process tracing analysis of the case presented by iRobot's branding and marketing strategy. As the core research question suggests, this research aims at developing an explanation of a causal path that has led to iRobot's branding and marketing strategy being successful in US markets (outcome). The theoretical explanation for this case is developed by using Gramsci's notion of common sense and Barthes's notion of myth. The hypothesised cause is that the strategy is successful as the ideas conveyed in iRobot's narrative are taken for granted in American society, i.e. they are part of a specific common sense, which implies that they are uncritically held by large sections of the US public. The hypothesised causal mechanism linking the cause and the outcome is therefore the following: when developing its brand and marketing, iRobot taps into a set of ideas and myths that are part of common sense; since these ideas are widely held in US society, the narrative resonates with large sections of the American public, which in turn leads to the branding and marketing being successful.

### **3.4. Bringing the Empirics and Theory Together: Branding as an Expression of Common Sense and Myth**

In order to develop a theoretical explanation for iRobot's case, the thesis uses the notions of common sense and myth as developed by Gramsci and Barthes, respectively. A brief discussion of Gramsci's writings can help explain why the notion of common sense is analytically useful. First of all, it should be highlighted that Gramsci's work was strongly empirically driven, as it was largely motivated by his desire to understand how fascism had succeeded in gaining and maintaining power in Italy, while communism had failed, despite the fact that fascism had very little to offer to the masses (Ives, 2004a: 80). In that regard Gramsci rejects the common and overly simplistic explanation that most people supported fascism because they were misled by Mussolini. In his view this explanation essentially obscures the elements that allow us to understand how people adopt values and attitudes towards life and politics (ibid.: 81).

Instead, Gramsci presents a more complex analysis that focuses both on the dominant worldview underpinning a regime, and on how this worldview comes into being. This is where the relevance of his notion of common sense becomes apparent. For him, regimes succeed thanks to the presence of common sense, which he defines as

the conception of the world which is uncritically absorbed by the various social and cultural environments in which the moral individuality of the average man is developed [...] Its most fundamental characteristic is that it is a conception which, even in the brain of one individual, is fragmentary, incoherent and inconsequential, in conformity with the social and cultural position of those masses whose philosophy it is (Gramsci, 2010: 419)

Gramsci insists on the incoherent character of common sense to the extent that he calls it 'a chaotic aggregate of disparate conceptions' (ibid.: 422). As Peoples points out, it is

precisely the contradictory character of common sense that makes it so powerful for Gramsci, as it gives it mass appeal (2010: 58).

Furthermore, Gramsci points to how common sense comes into being; in so doing he provides an indication on how to proceed to identify common sense and what leads to it. According to him, the creation of common sense is not fortuitous. Indeed, it is disseminated in society through language (2010: 323), via various channels, such as schools, the press, etc. (Gramsci, 1965: 482), and is the outcome of a hegemonic project whereby dominant social groups spread specific ideas at the societal level that will allow them to rule through consent, rather than through coercion (Gramsci, 2010).

In iRobot's case, the notion of common sense is useful because it provides the theoretical underpinning for the causal explanation of the success of iRobot's branding and marketing strategy in the American context, as it explains how ideas are circulated through language and how they are uncritically adopted by the masses. It should be noted however that while common sense as used by Gramsci generally refers to a worldview as a whole, in this thesis the notion is modified into "militarised American common sense", in order to reflect the fact that it is specifically used to refer to a set of ideas on the military, i.e. a specific fragment of what constitutes common sense.

There are nevertheless two important aspects of this investigation that Gramsci's writings on the notion of common sense do not address adequately. First, Gramsci does not pay attention to the role paid by images in spreading and sustaining common sense; instead he focuses on a more conventional understanding of what constitutes language. Second, even though language is an important element in Gramsci's account of how common sense comes into being, for 'in "language", there is contained a specific conception of the world' (2010: 323), Gramsci does not provide a systematic explanation



of how language and common sense relate to each other (Peoples, 2010: 70). For these reasons, the thesis turns to Barthes and his early writings on semiotics and the notion of myth when developing the theoretical explanation of iRobot's case (2009). The semiotic approach is compatible with Gramsci's work. As Ives points out, 'while Gramsci does not use the semiotic terminology of signifier, signified, and referent, [...] he does understand meaning as constructed by relationships *within* language [...and...] he views language as a system whereby meaning is created through signs' (Ives, 2004b: 14).

While in political analysis text is conventionally seen as a key medium through which meanings are transmitted, the inclusion of the visual has been a more recent focus (Hall, 2007; Rose, 2001; Weber, 2006; 2008; 2014). According to Cynthia Weber, the visual is important to the extent that it is only by including it in our analyses that we can achieve a grasp of global politics (2008). This understanding has become increasingly frequent. In contemporary Western societies 'it is now often suggested that much meaning is conveyed by visual images' (Rose, 2001: 6).

It should be noted however that images are polysemous, i.e. they have more than one meaning (Barthes, 1977: 39). The analysis of images is therefore bound to be interpretative, as meaning is not straightforward or transparent:

It is worth emphasising that there is no single or 'correct' answer to the question, 'What does this image mean?' or 'What is this ad saying?' Since there is no law which can guarantee that things will have 'one, true meaning' or that meanings won't change over time, work in this area is bound to be interpretative - a debate between, not who is 'right' and who is 'wrong', but between equally plausible, though sometimes competing and contested, meanings and interpretations. The best way to 'settle' such contested readings is to look again at the concrete example and try to justify one's 'reading' in detail in relation to the actual practices and forms of signification used, and what meanings they seem to you to be producing (Hall, 1997: 9).

A technique developed in an attempt to address the issue of polysemy on the part of the creators of images is the use of textual messages, which serve to guide the viewer of the image in choosing between the possible meanings. Barthes refers to this as anchorage, as language helps "anchoring" a meaning to an image (ibid.: 40).

Hall explains that the production of meaning through language is called representation (1997: 16). However, it should be noted that there are two processes involved, i.e. two systems of representation. The first system is the one by which objects, people, and events are associated with a set of mental representations in people's thoughts. The second system of representation is language, which comes into play when meanings are exchanged. This occurs through the association between concepts and ideas with text, spoken sounds or visual images, i.e. signs that 'represent the concepts and the conceptual relations between them' (ibid.: 18). In turn, these signs are organised into languages. While both the writing system and the spoken system of a specific language are obviously languages, so are visual images when they are used to convey meaning (ibid.). In line with Hall's perspective, both text and the visual constitute important aspects of iRobot's branding and marketing strategy for this investigation.

Barthes argues that language as myth plays an important role in influencing how people develop their ideas. According to him, in any given society, the dominant social groups create myths that contribute to enhancing their ability to rule. These myths are created through the use of language and images on the part of the dominant social groups, who construct specific representations of historical phenomena by obscuring their historical character (ibid.: 166-167). As Hall aptly summarises, myths are constructed through two separate but linked processes (1997: 39). First, the elements of

the image (signifiers) and the concepts evoked by the image (signifieds) unite to form a sign with a literal, denoted message. This message is then linked to a second set of signifieds, i.e. a broad ideological theme, leading to a 'more elaborate and ideologically framed message or meaning' (ibid.). In short, a myth is constituted by the first message being linked to a wider ideological theme. Barthes argues that due to the presence of these myths large sections of society become unable to appraise historical circumstances. The further the dominant social groups spread these representations at the societal level, Barthes argues, the more these appear as natural and unchangeable to the masses, reducing their ability to question them (2009: 167).

The function performed by myth suggests that there is a close resemblance between Barthes's notion of myth and the concept of common sense, as developed by Gramsci. In order to appraise how close Gramsci's and Barthes's notions truly are, it is useful to turn to some writings addressing the issue. While the combination of Gramsci's notion of common sense and Barthes's notion of myth is not commonly found in either IR or IPE, there are a few scholars that either stress the common ground in their theoretical constructs (Holub, 1992; Landy, 1996: 5; Squiers, 2014: 82), or that use the two scholars jointly, such as sociologist Dick Hebdige in his analysis of youth subcultures (1979).

Squiers's work suggests that Gramsci and Barthes can successfully be combined, as it highlights that they share the same conception of dominant ideology, which is at the centre stage of their respective theoretical elaborations. Squiers notes that for both of them, a dominant ideology, '1) serves particular interests, not universal ones, 2) is historically/socially conditioned and thus not an innocent reflection of objective phenomena, 3) obscures contradiction and attempts to project a unified totality and 4) is

in part a product of language' (2014: 82). Considering the centrality that both attribute to dominant ideology in their analyses, the fact that they share an understanding of what dominant ideology is and what it does suggests that their concepts are commensurable.

Hebdige's work is more directly relevant for his investigation, as he deploys Gramsci and Barthes together in his writings on subcultures (1979). He links the two scholars' work as he sees subcultures both as growing out of mythologies, understood in Barthesian terms (ibid.: 48), and as posing a challenge to hegemony, a notion that he borrows directly from Gramsci and describes as 'the most adequate account of how dominance is sustained in advanced capitalist societies' (ibid.: 15). Hebdige therefore adopts a Gramscian theoretical framework and draws on Barthes's notion of myth to explain subcultures. In his analysis of subcultures challenging hegemony, he points to the importance of semiotic elements. This can be seen in his argument about subcultures challenging hegemony in an indirect way, through the use of a specific style: 'the objections are lodged, the contradictions displayed [...] at the profoundly superficial level of appearances: that is, at the level of signs' (ibid.: 17). His section on the punk subculture clearly exemplifies the importance he attributes to semiotics:

To reconstruct the true text of the punk subculture, to trace the source of its subversive practices, we must first isolate the 'generative set' responsible for the subculture's exotic displays. Certain semiotic facts are undeniable. The punk subculture, like very other youth culture, was constituted in a series of spectacular transformations of a whole range of commodities, values, common-sense attitudes, etc. It was through these adapted forms that certain sections of predominantly working-class youth were able to restate their opposition to dominant values and institutions (1979: 116).

Subcultures are therefore seen as borrowing and transforming elements that belong to mythologies, in an attempt to challenge hegemony.

A noteworthy aspect of Hebdige's work on subcultures is that, even though there are references to common sense scattered throughout his book, he does not link it explicitly to Gramsci in the same way he does with hegemony, despite his use of the notion of hegemony and the role that common sense plays in sustaining the latter. He prefers to refer to mythologies instead when discussing the coming into being of subcultures. While Hebdige does not directly address this issue in his writings, his discussion of ideology might be understood as a statement in that regard. Ideology, he argues, cannot be 'reduced to the abstract dimensions of a "world view"' (ibid.: 12). In light of this statement, his preference for the notion of myth can be interpreted as him seeing myth as less abstract than common sense.

Hebdige's theoretical approach invites us to reflect on the difference between Barthes's concept of myth and Gramsci's notion of common sense. While both myth and common sense perform the function of obscuring ideology in a regime, as they engender the compliance of the masses, a comparison between the two concepts suggests that they do so at different levels. The concept of common sense seems to be more comprehensive, as it is used to refer to a conception of the world that permeates individuals' social context; by definition common sense is constituted by a set of uncritically widely held ideas. Myth, understood as a message linked to a broader ideological theme, seems more specifically tied to single instances in which ideology is obscured. Common sense and myth are therefore not synonyms. Rather, if one concept refers to a worldview and the other to single instances, it makes sense to think of common sense as encompassing myths, and conversely, to think of myths as constituting some of the building blocks of common sense.

Overall, Gramsci's and Barthes's work is similar with regard to their understanding of how dominant social groups largely rule through consent, which is

manufactured as the dominant ideology permeates society. However, each of them also contributes to accounting for specific elements of the analysis that the other does not account for. On one hand, through his notion of common sense Gramsci allows us to make sense of contradictions present in the dominant mode of thinking. On the other hand, Barthes's merits are that he highlights the relevance of visual elements in spreading ideology, and that his notion of myth helps to fill the gap in the connection between language and common sense that Gramsci does not address in his writings (Peoples, 2010: 70).

In order to further corroborate the claim that a combination of Gramsci's and Barthes's notions of common sense and myth, respectively, provides the most appropriate approach to investigate iRobot's branding and marketing, it is useful to turn to another approach that could have been used to investigate iRobot's branding and marketing strategy. An obvious choice would have been discourse analysis, which is widely employed for the analysis of language and images, and which bears some similarity to the approach adopted in this thesis.

Discourse analysis is best understood as a school that comprises different approaches and methods of analysis (Milliken, 1999: 228) that involve 'discourse as a key theoretical concept' (ibid.: 225). Despite the great diversity that characterises discourse scholarship, Milliken points to the existence of certain paradigmatic elements that underlie all of them. One of these elements that is particularly relevant for this thesis is that empirical studies undertaken in discourse analysis are typically aimed at identifying discourses understood as social backgrounds (ibid.: 231). These are the discourses that permeate the context within which, and that have an effect on how, people think and act. As Hall explains, discourses are a 'cluster [...] of ideas, images, and practices, which

provide ways of talking about, forms of knowledge and conduct associated with, a particular topic, social activity or institutional site in society' (1997: 6). An important similarity between the approach adopted in this investigation and discourse analysis is therefore that both approaches argue that the context in which people develop their ideas is relevant for the way in which these ideas are developed.

The main reason for not framing this investigation in terms of a discourse analysis is that most studies that adopt that approach pay too little attention to material elements. This critique is often raised against discourse analysis. As Hall points out with regard to Foucault, he is often accused of having the tendency to get absorbed into discourse, 'encouraging his followers to neglect the influence of the material, economic and structural factors in the operation of power/knowledge' (1997: 51). While there are some approaches within discourse analysis claiming that they pay attention to the material, these assertions should be carefully assessed. Norman Fairclough's approach probably represents a good example in that sense. Fairclough, a leading figure within Critical Discourse Analysis, develops his approach by drawing largely on Marx (Wodak and Meyer, 2009: 20), so of all the scholars engaging in discourse analysis from the most disparate perspectives, one would expect him to adopt a materialist perspective. However, as Richardson points out, this is not the case, despite claims to the contrary and despite Fairclough's 'declared commitment to Marxist social theory' (2007: 28). In order to illustrate Richardson's point, it is useful to take a look at one of Fairclough's statements:

I believe that there has been a significant shift in the social functioning of language, a shift reflected in the salience of language in the major social changes which have been taking place over the last few decades. Many of these social changes do not just involve language, but are constituted to a significant extent by changes in language practice (1992: 6)

According to Richardson, this approach comes close to an idealistic conception of social reality, which contrasts with Marxist social theory. The position adopted in this thesis is that material and ideational factors cannot be separated, which echoes the position adopted by Gramsci on the issue:

for the philosophy of praxis, "matter" should be understood neither in the meaning that it has acquired in natural science [...], nor in any of the meanings that one finds in the various materialistic metaphysics. The various physical [...] properties of matter which together constitute matter itself [...] should be considered, but only to the extent that they become a productive "economic element". Matter as such is therefore not our subject but how it is socially and historically organised for production (2010: 465).

As Ives puts it, 'Gramsci does not share [...] a condemnation of deemphasising the role of the physical objects of the ideas that language refers to' (2014b: 89). This superseding of the separation between 'material' and 'non-material' is part of Gramsci's appeal, particularly at a historical time in which an increasing number of commodities have simultaneously material/physical components, and also non-material components, e.g. a brand name. In his words 'among other attractive features of his writings is [Gramsci's] refusal to accept the assumed opposition between the materiality of the economy and commodities versus the non-materiality of language, signification and language' (2004a: 127).

### **3.5. Data Collection and Analysis**

Having explained the overall logic of the investigation and, most importantly, having pointed out the issues that are frequently associated with the methods that will be employed, it becomes clear why it is necessary to spell out the various steps undertaken to carry out the empirical investigation. This section therefore demonstrates that the



study of iRobot's branding and marketing strategy follows a systematic approach, both with regard to the empirical data collection process and the analytic strategy adopted.

### **3.5.1. Retrieving the Data**

The first step of the empirical investigation consists in identifying the sources from which to gather the relevant data to be used for the empirical analysis. In order to provide a comprehensive account of the way in which iRobot constructs its self-image, the selection includes both primary and secondary sources, i.e. original, unedited, and 'first-hand' data, and 'second-hand', edited, and interpreted material, respectively (Pierce, 2008: 80). The primary sources are the firm's website, its YouTube channel called iRobot iTube, its press releases, and the STEM Facebook page; the data collected from these constitute the bulk of the empirical material. The secondary ones are publicly available articles containing interviews to the firm's spokespeople or statements made by them.

The website is considered a particularly important source of data, because this is where iRobot most explicitly develops its self-image. Furthermore the website is also likely to be one of the main points of contact between the firm and the broader public. There are several studies on private military and security companies (PMSCs) that consider websites as a key source of information on how these companies build their self-image and develop their self-promotion (Chisholm, 2014a; 2014b; Leander, 2005: 822; Joachim and Schneiker, 2012a; 2012b). Joachim and Schneiker have published several studies centred on the study of homepages of PMSC websites. They argue that homepages are crucial instruments through which PMSCs can 'construct and constitute

their identities' (Joachim and Schneiker, 2012b: 254) and 'shape and influence their public image' (Joachim and Schneiker, 2012a: 500).

In a similar vein, the iRobot iTube channel is another means through which the firm can build its self-image and that shows the firm's willingness to increase its web presence. Finally, press releases, Facebook pages and articles with interviews to the firm's spokespeople also contribute to spreading a specific image on the part of the firm; both sources contain official statements, which reflect the way in which the firm wants to appear in the media.

The following step consists of gathering the relevant data from these sources. Prior to commencing, it is necessary to establish the guiding criteria for data collection, in order to ensure both a systematic and targeted data collection. The rationale for this is that without a clear research focus, it is easy to become overwhelmed by the amount of data (Eisenhardt, 1989: 536). For that reason, it is necessary to state the purpose of the investigation as clearly as possible, as it facilitates moving in the right direction when looking for relevant evidence (Yin, 2003). Since the overall research objective is to find out what makes iRobot's branding and marketing strategy successful in US consumer markets, the data collection is geared towards capturing the ideas that emerge from it; these will then be used for process tracing. The data collection is therefore focused on gathering data that shows how the firm constructs its military character, i.e. when iRobot makes reference to the military theme, either through textual, visual or audio-visual means. These various elements are selected for the analysis, as it is through them that the firm conveys its narrative at the societal level.

An issue that had to be addressed in order to ensure a systematic data collection is the complexity of some of the primary sources investigated. In the press releases,

which are accessible on the firm's website, the data is readily available in textual form, therefore collecting the data on iRobot making reference to its military character is a relatively straightforward process, once the criteria for data collection are established. However, gathering data from both the website and the iRobot iTube channel is a more complicated enterprise. iRobot's website has an intricate structure; it includes a plethora of links and paths. It also provides textual and visual data, together with some audio-video data. In order to ensure a rigorous data collection from the website, a complete site map was drawn in April 2012. This allowed me to explore the website systematically and compose a write-up containing the "military-themed" portions of texts and notes on both the images and the videos present on the website in January 2012. Some data was also retrieved after 2012. As Eisenhardt points out, if a new data collection opportunity arises, it should be taken advantage of (1989: 539).

Thanks to the Wayback Machine, a digital archive that grants access to iRobot's website from 2000 onwards, I have also access to the homepages of the firm's website from 2000 until the present day. While it would be interesting to explore the website in greater depth at various historical times, this would be too time-consuming and the amount of data would be overwhelming; the option had therefore to be discarded. At the same time, the relevance of homepages alone should not be downplayed. As Joachim and Schneiker's work suggests (2012a; 2012b), homepages offer important insights into the way in which military firms construct their self-image, both textually and visually. An analysis of the homepages over a time span of 15 years can help develop an understanding of the way in which the firm has progressively attempted to build its image, in order to establish whether iRobot followed some pattern. In particular, the availability of pre- and post- 9/11 data can show if the terrorist attacks had an impact on iRobot and the firm's strategy.

I then proceed to collect data from the iTube iRobot YouTube channel and the STEM Facebook page, looking for both textual and audio-visual material where the military theme is present. In order to facilitate the ensuing step of the investigation, I proceed to create a write-up for each source, containing the transcriptions of the relevant portions of audio for each relevant video and notes on the videos and images used. This step is facilitated by the small number of videos and images uploaded.

Finally, I carry out a web-based search for articles containing official statements and interviews with company spokespeople. The search is made by looking for documents containing the keywords "iRobot and military and Roomba". These keywords are selected as documents containing both are expected to contain data on the way in which iRobot emphasises its military character when advertising its domestic products.

At the end of this step of the investigation, I will have compiled several detailed write-ups, which contain the relevant data for each source of data (Pierce, 2008: 178). As Eisenhardt (1989: 540) points out, the relevance of write-ups lies in their ability to help the researcher to cope with the big volumes of data, particularly at the beginning of the analytical process.

### **3.5.2. Analysing the Textual and the Visual Data**

Following the data collection and the composition of the various write-ups, the data is ready to be analysed. As Neuman explains, 'in general, *data analysis* means a search for patterns in data - recurrent behaviors, objects, phases or ideas' (2014: 487 - emphasis in original). Identifying patterns is a key step, as once a pattern is identified and interpreted in terms of a social theory or the setting in which it occurred, it will allow a

researcher to move from the particular to a more general interpretation (ibid.; Pierce, 2008).

The data is analysed following a semiological approach, in line with Gramsci's and Barthes's understanding of how meaning is conveyed through language, both textual and visual. Hall explains that a semiological approach 'provides a method for analysing how visual representations convey meaning' (Hall, 1997: 41). While he makes this specific point in relation to images, this also applies to text, since text is also a sign (Chandler, 2002). One of the biggest strengths of the semiological approach lies in the fact that it involves the deployment of a refined set of concepts that produce detailed accounts of the ways in which meaning is produced (Rose, 2001: 70). A semiological analysis does therefore entail outlining the various steps by which broader meanings are produced (Hall, 1997: 39).

The first step of a semiological analysis involves identifying signs. For semiologists, signs are the units of meaning. In Williamson's words, a sign is

quite simply a thing - whether object, word, or picture - which has a particular meaning to a person or group of people. It is neither the thing nor the meaning alone, but the two together. The sign consists of the *Signifier*, the material object, and the *Signified*, which is its meaning. These are only divided for analytical purposes: in practice a sign is always thing-plus-meaning (1978: 16 - emphases in the original)

This therefore implies that the data is considered looking for signs that refer to the way in which iRobot draws the links between its military and civilian divisions. Importantly, in semiological analysis, the meaning of a sign also depends on how it relates to other signs.

Once the links between the various signs have been made, the successive step consists of attempting to draw links between signs and wider systems of meaning, which

is what allows the semiologist to connect to the broader ideologies at work in a society (Rose, 2001: 89).

The analytical process starts by focusing on the textual data and follows an inductive approach. I therefore proceed to carry out a first reading of the textual material gathered to familiarise myself with the data. A second reading is then carried out, during which I make notes of core themes and ideas present in the relevant data, with the aim to divide the data into various categories. I then create another document, which contains the relevant data for each category. This is done to facilitate the identification of patterns for each one of them.

In the following reading, aimed at identifying patterns, I look for the use of linguistic devices, such as metaphors, dichotomies, and emotion-arousing terms. These are seen as particularly relevant, due to what they do both linguistically and politically. The use of linguistic devices would suggest that iRobot makes an attempt to convey messages that go beyond advertising the firm's products, as they frame their messages in specific ways.

Metaphors have consistently received attention by political communication scholars as 'potent instruments of political persuasion' (Paris, 2002: 428). It is generally agreed upon that metaphors can affect how people grasp and respond to a specific issue or event. 'Because metaphors, by definition, draw attention to similarities across different domains, they invite listeners to conceive of one issue or phenomenon in the light of another issue or phenomenon' (ibid.). Metaphors therefore frame concepts in specific ways; crucially, they highlight some aspects of the concepts used, while also hiding others (Lakoff and Johnson, 1980: 10).

Dichotomies are a linguistic device typically used to create and defend boundaries between categories. A classic example is the "us vs. them" dichotomy, which is widely used as part of a 'strategy of positive self-presentation and negative other-presentation' (van Dijk, 2006: 373). The reason it is so widely used is due to the mentality that it is thought to imply. As social psychologist Tajfel argues, once people identify with a group, it can result in negative stereotypes and attitudes, and discrimination towards outsiders (1982). Dichotomies therefore also contribute to the framing of messages in specific ways.

Emotion-arousing language, as Barthes (2009) points out, is usually employed with the aim to sentimentalise the recipients of messages. This argument is also further corroborated by neuroscience studies that have demonstrated that emotions play a role in the way in which people process information (Graber and Smith, 2005).

As a final step of the analysis of text, I interpret the key ideas conveyed in the categories identified, by paying attention to use of linguistic devices, and attempt to derive broader themes.

The analysis then shifts to the visual elements gathered. As for the textual analysis, the approach used is inductive and the purpose is to obtain findings that will allow me to triangulate the findings from the textual analysis. For visual data, semiological analysis also pays great attention to the compositional aspect of images (Rose, 2001: 72), e.g. content, spatial organisation of an image, graphic framing devices (Williamson, 1978; Goldman, 1992), to cite a few.

Due to the large amount of data and the time-consuming process of analysing images, I will focus on five subunits. As Yin (2003: 41-42) points out, using a set of subunits is a common practice in single case studies. These can serve the purpose of

focusing a case study enquiry, as long as the researcher makes sure that the original phenomenon of interest remains the research focus and does not simply become the context (ibid: 44).

The five subunits selected are the homepages of the firm from 2000 until 2014, the homepage of the iRobot iTube YouTube channel, the first images appearing in the "Home Robots" and "Robots for Defense and Security" sections of the website, the images of the SPARK educational programme website, and the iRobot STEM Facebook page.

The homepages are selected as a subunit as they are likely to be one of the main points of contact between the public and the company. Also, the retrieval of the homepages of the firm's website over a time span of 15 years allows to investigate whether there has been any noteworthy change in the way the company has developed its image over time, e.g. following 9/11. The homepage of the iTube channel is chosen as it provides a visual overview of the channel, i.e. the videos uploaded by the company. The first images on both the 'Home Robots' and 'Robots for Defense and Security' sections were selected as they fulfill the same function of a website's homepage for each individual section. The images from the SPARK educational programme are selected because in addition to showing what the firm wants to say about its engagement with students, these pictures also show some of the actual practices enacted by the firm at the social level, as they demonstrate their products in schools. This aspect is considered particularly relevant due to the intrinsic value of educational establishments in any given social system, as key sites for the production of knowledge, values and ideas. Finally, the STEM Facebook page is chosen to obtain an insight of what the firm wants to convey on social media.



It should also be noted that the analytical process also takes into account the text associated with the images, since it provides a useful indication on the way in which an image should be interpreted. In this thesis, the text accompanying images is considered relevant when analysing the images selected, as it reflects what the firm is trying to convey to its audience or, in other words, the meaning that iRobot tries to attach to its images.

For each of the subunits selected, the analytical strategy proceeds as follows. First, I identify the signs present in each picture. The next step involves the identification of compositional elements of the picture. Particular attention is paid to the content, the spatial organisation and the text accompanying each image. Since the aim of the investigation is to study how iRobot builds its self-image, the ways in which iRobot visually relates its military and civilian products, or represents both its military robots and the military missions where the latter are sent, is considered particularly relevant. The key aspects considered were how much spatial weight is given to the different signs, e.g. the domestic and the military robots, how they are connected (e.g. through graphic framing devices) and the accompanying text. Both Williamson (1978) and Goldman (1992) assign great relevance to these elements when they explain how advertisements work. As Rose points out, the size of signs is frequently important, as advertisements often highlight the important element by making it big (2001: 78).

Once the meaning of each image is interpreted, the analysis shifts to identifying patterns, with the aim to identify the core themes conveyed by the firm's narrative. In the case of the homepages, the study considers whether there is a pattern emerging from the various images over time. In the case of the other visual material, the images are considered together for each subunit. Finally, the analysis proceeds to synthesise the

findings of the semiological analysis and compare them with the findings of the textual analysis, in order to establish whether iRobot develops a consistent image across multiple media.

### **3.5.3. Tracing the Causes of iRobot's success**

The final part of the empirical analysis consists of considering the narrative emerging from the data analysis within the context of American society. The purpose is to find out whether the ideas referred to by iRobot are part of a broader common sense, i.e. whether they are ingrained at the societal level to the extent that they would resonate with large section of the American public. The logic behind this is that if these ideas are indeed part of a militarised American common sense, it provides a plausible explanation for the success of iRobot's branding and marketing strategy (i.e. the outcome enquired, in process tracing parlance).

Clearly common sense cannot simply be measured. In order to operationalise the notion, the study uses manifestations of the core ideas for which there is public opinion data. Firstly, I proceed to identifying manifestations of the core themes advanced by iRobot's narrative, which are identified in the textual and visual analyses. Secondly, I attempt to understand what large sections of the American public think about these themes by using the findings of polls published by several companies providing public opinion research. Finally, the study moves on to tracing the origins of the generally accepted ideas, to identify the underlying causes that have led to their emergence in American society.

### **3.6. iRobot and the Reproduction of Militarised American Common Sense**

The last aspect that this chapter addresses is how iRobot can contribute to reproducing common sense. In other words, this section deals with the feedback loop between common sense and myths, iRobot and militarisation, i.e. the spread of militaristic attitudes and ideas at the level of civil society.

As the section on Gramsci and Barthes explains, common sense comes into being as ideology is circulated at the level of civil society, for instance through the use of myths, and mostly through specific channels such as educational establishments and the media (Gramsci, 1965: 482). The further ideology is spread at the societal level through the use of language both textual and visual, the more it will seem natural to the masses, which in turn will stand in the way of them thinking of it critically.

The claim that iRobot contributes to the reproduction of American militarised common sense is therefore based on its narrative being consistent with American militarised common sense and the access that the company has to the various channels through which ideology is spread in society, specifically the media and educational establishments.

Unlike many other military firms, iRobot has access to the broader public through its presence in consumer markets. Since most of the PMSCs offer products and services that are not for civilian consumers, they will not be able to reach the public to the same extent. To exemplify this point, it suffices to think that consumers are more likely to access iRobot's website than the website of a military company providing logistics. iRobot has therefore the possibility to use the media, such as its website, its

Facebook page, but also tech magazines when its spokespeople release interviews, to spread its messages at the societal level.

Furthermore, iRobot is also granted access in educational establishments, usually through its programmes for the advancement of robotic knowledge. The fact that iRobot has the possibility to bring its narrative into schools is particularly relevant, as educational establishments play a key role in the development of individuals' values and ideas.

## **Conclusion**

This chapter has shown how investigating iRobot's use of language and imagery in the construction of the firm's image can help us to gain an insight into militarised US common sense and into the changing role and place of military companies in contemporary American capitalism. It has also explained why a combination of Gramsci and Barthes allows us to develop the most suitable theoretical explanation for the success of iRobot's branding and marketing strategy in contemporary American society. This was done by highlighting the merits of Gramsci's and Barthes's concepts for addressing the research question but also in comparison to an alternative approach, i.e. discourse analysis. Furthermore, by using Gramsci's and Barthes's concepts, the chapter has also explained how iRobot's narrative can further contribute to the reproduction of a militarised society, as it can further circulate ideas and myths that are part of American militarised common sense at the level of civil society through various channels.

The chapter has also clarified how the various parts of the thesis fit together by explaining the overall logic that guides the investigation, including the use of an inductive approach, the definition of the investigation as a case study, and the adoption of process tracing to develop an understanding of the mechanisms that have led to the success of

iRobot in contemporary US society. Furthermore, it has also set the stage for the empirical analysis, by providing details on the strategy adopted for the collection and the analysis of the data retrieved.

**Chapter 4 -The Mystifications of Common Sense and Myth:**  
**Understanding iRobot's Branding and Marketing Strategies through**  
**Gramsci's and Barthes' Conceptual Elaborations**

**Introduction**

The previous chapter has spelled out why Gramsci's and Barthes's concepts of common sense and myth, respectively, together with their approaches to the study of language and imagery, are the most suitable to develop a theoretical explanation for the success of iRobot's branding and marketing strategy and to corroborate the claim that iRobot's narrative can play a role in the reproduction of militarisation.

This chapter contributes to the overall aim of the thesis by explaining in greater detail how their theoretical elaborations fit together, thus expanding the discussion initiated in the previous chapter. In so doing, the chapter further contributes to laying the theoretical foundation of the thesis. Particularly in light of Barthes' post-structuralist turn at a later stage of his career, it is imperative to provide a solid justification for the development of a theoretical framework that borrows at the same time from both Gramsci's and Barthes' work.

This chapter will demonstrate that despite some differences, there are key aspects of the two scholars' approaches to the study of politics that bear crucial similarities and thus make them compatible. Both scholars have erected their theoretical edifice by drawing on a similar ontological basis, as they take the capitalist system as a starting point for their analysis and adopt a class-based approach to the study of politics. They also share a very similar intent, as their analyses are fundamentally motivated by a critical

stance toward capitalist societies and the dominant modes of thinking present in the latter. Thus, their overarching goal is to challenge the “taken-for-granted” ideas that appear as natural to the great majority of people in a society, for there is nothing natural about them. The other key similarity between Gramsci and Barthes, which stems from their understanding of how common sense and myth come into being, is that cultural phenomena are key for the study of politics. Both attribute great importance to the role of language, which is one of the key elements analysed in this research. In addition to language, Barthes also emphasises the importance of pictorial and other types of representations, which are absent in Gramsci’s writing, but are deemed crucial for the current investigation.

The chapter has been divided into four main sections; the first three each address one of the similarities between Gramsci’s and Barthes’ approaches to political analysis mentioned above, whereas the final one provides the theoretical framework developed by drawing on Cox, incorporating both Antonio Gramsci’s and Roland Barthes’ conceptual and theoretical elaborations.

#### **4.1. Gramsci’s and Barthes’ Ontological Commensurability: An Outline of the Overlapping Aspects in their Theoretical Frameworks**

This section demonstrates that Gramsci and Barthes can be said to be compatible at a basic ontological level, as both develop their approaches by drawing on the same basic analytical categories. The first subsection will focus on Gramsci and show that throughout his writing it is clear that he adopts a Marxist approach to the study of politics. The subsection will also point out that there are some key aspects of his work that might seem to contrast sharply with Marx’s theoretical endeavor, namely the high

level of attention paid to ideational aspects in his analyses and the role attributed to cultural phenomena. Nevertheless, the case will be made that even though Gramsci departs from Marx to the extent that he strongly emphasises the role of ideas in shaping the context within which human action occurs, he still remains fundamentally Marxist.

The second subsection focuses on Barthes and shows how similarly to Gramsci he also tends to develop his analysis in line with some basic tenets of Marxist doctrine, as he develops a critique of bourgeois society, adopting a class-based analysis, at least in his early work. The subsection will reflect on Barthes' relationship with Marxism, given the overlaps at the ontological level. On the basis of the key tenets underpinning Barthes' work, in addition to other features that will be outlined in the two other sections of the chapter, it is argued that Barthes' work can indeed be used in conjunction with Gramsci's for the development of a theoretical framework, as they share an analogous ontological basis.

#### **4.1.1. Gramsci, a Marxist Sui Generis: The Importance of Ideas in the Exercise of Power**

One of the main aspects one needs to bear in mind when setting out to engage Gramsci's theoretical edifice is that, in spite of his focus on the importance of ideational factors and his great interest and attention paid to cultural phenomena in his political analyses, he remains a Marxist in a fundamental way. Gramsci does in fact elaborate his theoretical enterprise within a Marxist theoretical framework (Hall, 1986: 7). In his writings it is clear that he adheres to the basic Marxist categories of analysis, as he focuses on the capitalist mode of production and adopts a class-based approach to the study of politics. In fact, Gramsci makes reference to the notion of class throughout his



work, which he defines as ‘an economic fact’ (Gramsci, 2010: 269). He explains: ‘every social group com[es] into existence on the original terrain of an essential function in the world of economic production’ (ibid.: 5)<sup>3</sup>. And he adds that ‘the worker or the proletarian [...] is not specifically characterised by his manual or instrumental work, but by performing this work in specific conditions and in specific social relations’ (ibid.: 8). In these quotations, the reference to the Marxist notion of class is evident.<sup>4</sup> It should be noted however that in his writings classes are not merely a feature of the relations of production; they are self-aware social groups thanks to the role performed by “organic” intellectuals, elements that emerge as classes are created, and give them homogeneity and awareness of their own function at the economic, social and political levels (Gramsci, 2010: 6).

The importance of pointing out Gramsci’s adherence to these basic Marxist categories, although he asserts the need to integrate other concepts when analysing concrete historical cases, derives from the relevance that these categories bear in his approach to political analysis. However, it is important to note that Gramsci’s approach to political analysis is also characterised by important differences that set it aside from Marxist doctrine, at least the one developed until his time.

In fact, even though Gramsci operates within a Marxist theoretical framework, he also makes substantial theoretical contributions to the doctrine; he is therefore probably best described as a Marxist *sui generis*. The most obvious example is the development of his notion of hegemony with which he emphasises the role of ideas in the exercise of power.

---

<sup>3</sup> As pointed out by the editors of the ‘Selections from the Prison Notebooks’ (2010: 5), Gramsci tended to avoid the term “class” due to its clear Marxist connotation; his writings were in fact subjected to Fascist censorship. Instead he would refer to “social groups”, which had a more neutral tone.

More generally, according to Stuart Hall, Gramsci recognises the need to ‘adapt, develop and *supplement* Marx’s concepts with new and original ones’ (Hall, 1986: 8, emphasis in the original). In turn, he argues, this is linked to the fact that Gramsci perceived Marx’s work as being too abstract: Marx developed his ideas at the highest level, without rooting his analysis into concrete historical examples. Moving away from Marx’s general level of abstraction to a more concrete level of application was a necessary step to take, that is, if one wants to adequately comprehend the concrete historical phenomena that are the object of one’s analysis (Hall, 1986). Marx’s theorisation does in fact allow reaching an understanding of the broad processes at the heart of the capitalist system but does not necessarily allow one to fully grasp specific situations (*ibid.*). This is where the need for the integration of Marx’s concepts with new ones and detailed historical specification stems from.

Evidence for Hall’s point on Gramsci’s perceived need to focus on specific historical cases can be found in a section of the Notebooks, in which Gramsci discusses internationalism and how it can be achieved through action at the national level:

The internal relations of any nation are the result of a combination which is “original” and (in a certain sense) unique: these relations must be understood and conceived in their originality and uniqueness if one wishes to dominate them and direct them.[...] It is necessary to study accurately the combination of national forces which the international class [the proletariat] will have to lead and develop (Gramsci, 2010: 240).

Throughout the various sections of the Notebooks, it becomes clear that Gramsci’s inclination to undertake analyses of concrete historical cases is particularly relevant in his work; the analysis of specific historical situations constitutes the bulk of his academic enterprise, from which his conceptual elaboration can be derived. Indeed, Gramsci’s analysis and theoretical endeavor is embedded in historical circumstances to the extent that it is sometimes argued by some of his critics that his analysis being that

specific, it cannot be applied to any other context. In Hall's words, this attitude is explained by the fact that 'Gramsci's work often appears almost *too* concrete: too historically specific, too delimited in its references, too "descriptively" analytic, too time and context-bound' (1986: 6, emphasis in the original). While it might be true that drawing concepts from Gramsci's work can at times present some difficulties, for, in order to fully grasp his writings, one generally needs to be familiar with the history he refers to when developing his notions, the vast literature deploying a Gramscian framework with regard to the most disparate topics and contexts has certainly demonstrated that Gramsci does have a great deal to offer in terms of his conceptual elaboration. However, as Hall points out, one needs to be aware that to make use of Gramsci's ideas and formulations, 'they have to be delicately dis-interred from their concrete and specific historical embeddedness and transplanted to new soil with considerable care and patience' (1986: 6).

Gramsci's inclination to analyse concrete historical cases can be explained by various elements. First, it is linked to the scholar's personal development. In fact, it should be kept in mind that despite the widely acknowledged significance of his theoretical contribution, he was not a theorist in a classical sense; rather, he was first and foremost a political activist, a 'communist and militant before all else' (Hardt and Negri, 2000: 451), constantly engaged in Italy's political life. It is widely agreed in the literature that this fundamental aspect of his life is substantially reflected in his writing (Hall, 1986; Brookfield, 2005). In Hall's words, 'his "theoretical" writing was developed out of this more organic engagement with his own society and times and was always intended to serve, not an abstract academic purpose, but the aim of "informing political practice"' (Hall, 1986: 5).

Second, it should be acknowledged that his reflections and writings were largely driven by the desire to understand phenomena of his time that he could either not grasp or for which he could not find any satisfactory explanations. An example of this is constituted by his reflections on the nature of fascism, which set his work aside from that of most other contemporary writers interpreting the phenomenon (Adamson, 1980).

Overall, this investigation is in line with Gramsci's approach, as it is premised on the idea that the phenomenon inquired, i.e. iRobot's dual-character branding and marketing strategies, cannot be adequately understood without paying attention to the specific historical circumstances in which it is rooted and in which the firm flourished (the importance of historical specification when carrying out political analysis will be further addressed in the following sections of this chapter) and it is therefore imperative to study it within that context.

Another element allowing a better comprehension of Gramsci's theoretical singularity is the development of the predominant understanding of Marx's theoretical edifice into the beginning of the twentieth century. Before Gramsci's elaboration, the doctrine had tended to be caught in some kind of mechanical materialism. 'In the most recent developments of the philosophy of praxis [Marxism] [...] there still remain residues of mechanicism' (Gramsci, 2010: 334). He explains: 'Mechanical historical materialism [...] assumes that every political act is determined, immediately, by the structure' (Gramsci, 2010: 408). From his point of view this development had led to a certain degree of inertia (Femia, 1975: 29), which was mainly due to the belief that capitalism would *inevitably* collapse as a result of its internal contradictions, a widely shared teleological interpretation of Marx's work. The doctrine was therefore caught in a

form of economic reductionism, which was solidly anchored in the belief that the structural conditions alone would bring the demise of capitalism.

In Gramsci's eyes, the way in which the Marxist doctrine had been developed was problematic for two reasons. First, being such an ardent political activist himself, he recognised the danger of political passivity that the contemporary Marxist doctrine could engender. In that regard Gramsci argued that 'it is essential at all times to demonstrate the futility of mechanical determinism: for [...] when it is adopted as a thought-out and coherent philosophy on the part of the intellectuals, it becomes a cause of passivity, of idiotic self-sufficiency' (Gramsci, 2010: 337). Thus, Gramsci strongly rejected any teleological interpretations of Marx's work.

Second, the economic reductionist Marxist approach, based as it was on the belief that the structural conditions alone would lead to the collapse of the capitalist system, neglected the important role played by immaterial factors in affecting human action. Thus, for Gramsci, reconsidering the relationship between base and superstructure became a pressing necessity, as for him 'ideas had consequences which could not be dismissed or reduced to a more 'real' world of social and economic phenomena' (Femia, 1975: 29). In Gramsci's words,

It is the problem of the relations between structure and superstructure which must be accurately posed and resolved if the forces which are active in the history of a particular period are to be correctly analysed, and the relation between them determined (2010: 177).

The extent to which ideas bear relevance in shaping human behavior (clearly, in no way is this to be understood in a deterministic manner) according to Gramsci can be best comprehended by looking at his concept of hegemony.

Among the various notions developed by Gramsci, the concept of hegemony is undoubtedly the one that has attracted the greatest amount of interest academically. The

value of the concept lies in its capacity to highlight the role of ideas in the exercise of power of a social group over other social formations.

Gramsci developed the concept by distinguishing two ways in which the supremacy of a social formation manifests itself, “domination” and “intellectual and moral leadership”, also widely referred to with the notion of hegemony (Gramsci, 2010: 57). On the one hand, supremacy as “domination” is exercised when the social group dominates antagonistic groups; this kind of supremacy implies some form of coercion to obtain compliance from the dominated groups (ibid.). On the other hand, “intellectual and moral leadership” is realised through the various institutions of civil society, i.e. the schools, the Church, the mass media and so on, and is obtained through consent (Femia, 1975: 30 – 31; 33).

The great importance Gramsci attributes to hegemony as the most effective way of exercising power can be derived from his argument that for a social formation to obtain governmental power, it must already exercise leadership: ‘it seems clear [...] that there can, and indeed must, be hegemonic activity even before the rise to power, and that one should not count only on the material force which power gives in order to exercise an effective leadership’ (Gramsci, 2010: 59). In that sense, the role of ideas in Gramsci’s understanding of the exercise of power by obtaining consent becomes evident.

#### **4.1.2 The Ontology of Barthes’ Approach to Political Analysis**

One of the key aspects that Barthes has in common with Gramsci is the intent at the basis of his analysis. In fact, Barthes’ collection of essays called *Mythologies* (2009) was largely motivated by his intention to develop a critique of bourgeois society and some of its numerous myths, and by extension of the capitalist system more broadly. In fact, in

his preface to the 1970 edition of the book, Barthes refers to the entirety of his work contained in *Mythologies* by employing the notion of 'ideological criticism' (2009: xvii), whose purpose was to 'account in detail for the mystification which transforms petit-bourgeois culture into a universal nature' (ibid.). Thus, the overall purpose of Barthes' book coincides with one of the key goals of Gramsci's writings, i.e. expose the dynamics that mask the power relations at play in capitalist societies, by focusing on and critiquing the predominant ideology.

Barthes' explicit critical stance toward capitalism can also be found in some specific examples. For instance, in the essay called 'Wine and Milk' (2009: 65-68) in which he explains the mythical character of wine in French society, he does in fact condemn how the production of wine is

deeply involved in French capitalism, whether it is that of the private distillers or that of the big settlers in Algeria who impose on the Muslims, on the very land of which they have been dispossessed, a crop of which they have no need, while they even lack bread. There are thus very engaging myths which are however not innocent. And the characteristic of our alienation is precisely that wine cannot be an unalloyedly blissful substance, except if we wrongfully forget that it is also the product of an expropriation (ibid.).

This quotation demonstrates how Barthes' analysis is strongly driven by the desire to expose the dynamics at work in capitalist societies, where goods are produced and consumed without a reflection on the broader implications of their production and on the capitalist system more broadly.

Social classes are another key element for analysis in Barthes' work that also plays a primary role in Gramsci's writings. Throughout his book he does in fact refer to the bourgeoisie and the proletariat (2009: 19; 58; 85), thus suggesting that his approach to political analysis is class-based.

In his essay 'The poor and the proletariat' (2009: 35-37) he discusses Charlie Chaplin's representation of the proletariat, making reference to the force with which he presents both the 'proletarian still blind and mystified, defined [...] by his total alienation at the hands of his masters' and the 'humiliated condition of the worker' (2009: 36). This clearly shows how Barthes conceives of the proletariat and the bourgeoisie as two classes that stand in an antagonistic relationship, and where the former suffer at the hands of the latter.

Barthes' analysis of the 'bourgeois status of toys' (Barthes, 2009: 58) is also particularly interesting from the perspective of this analysis, as he both draws links between the production of toys and bourgeois society and makes reference to the martial quality of some of these toys as an important aspect of the society he lives in. In general, Barthes explains how through the production and dissemination of specific types of toys, the bourgeoisie contributes to the diffusion of ideas that are functional to the reproduction of bourgeois society. At the time of his writing, Barthes points out, in France toys tended for the most part to be 'reduced copies of human objects' (Barthes, 2009: 57). In that regard, he states that,

the fact that French toys *literally* prefigure the world of adult functions obviously cannot but prepare the child to accept them all, by constituting for him, even before he can think about it, the alibi of a Nature which has at all times created soldiers [etc.] Toys here reveal the list of all the things the adult does not find unusual: war, [...] etc.' (ibid.).

By providing children with this type of toy, he adds, the child identifies himself as owner and user, 'he does not invent the world, he uses it' (2009: 58). In that sense, children are confronted with certain features of the world, which tends to render them normal in their eyes, reducing the scope for a critical approach to the latter. A further remarkable aspect of this quotation is that Barthes makes two explicit references to martial elements, as he



mentions both soldiers and war as two elements typically reproduced by toys in bourgeois society. In that sense, some parallel can be drawn with this investigation: As will be seen in the empirical section of the thesis, iRobot targets schools with some of its educational programmes, bringing warfare robots into the classroom, thereby contributing to instilling martial ideas in children from a very early age.

These are only a few examples, which illustrate how Barthes draws clear links between the bourgeoisie and the most disparate elements present in people's everyday life. Polan (2008) sums this up very clearly, pointing at the relevance Barthes attributes to the bourgeoisie in shaping society:

Virtually the whole of Barthes' corpus involves an explicit identification and ethical condemnation of the primary producers of our contemporary society: the bourgeoisie. To be sure, there is no precise discussion in Barthes of the mode of production that leads to the dissemination of bourgeois ideology (except insofar as that mode abstractly relies on mythological procedures in which history is naturalized), but there is nonetheless a sense that the fully social objects of our modernity come from fully social origins in a producing class (2008: 461).

Overall, when considering the intent leading Barthes' work and the analytical categories he focuses upon, especially in light of the similarities existing with Gramsci, various overlaps with Marxist doctrine can be identified. Clearly, these are not employed as systematically as by Gramsci, who explicitly adheres to Marxism and inserts his analysis into an obvious Marxist framework. Nevertheless, the references to the proletariat and the bourgeoisie, together with Barthes' broader critique of capitalism are clearly evocative of some key Marxist ideas. Since these elements constitute the ontological basis for Barthes' work, it seems reasonable to ask whether Barthes was Marxist.

The amount of literature attempting to establish the extent to which Marx has exerted an influence upon Barthes' theoretical work, or put more bluntly whether

Barthes was Marxist (at least for a period of his life), testifies to both the relevance and the opacity of the matter (Roger, 1996; 1997; Coste, 1998; Polan, 2001; Milner, 2003; Lecercle, 2008). Indeed, perhaps the only aspect most scholars seem to agree upon is the fact that the relationship between Barthes and Marxism was always of a tormented sort. In Lecercle's words, 'If we follow Barthes' own testimony, the relation to Marxism is a problematic one: Marxism is at best a bygone phase of his intellectual life, at worst an imposition from which he suffered' (2008: 75).

In general, among the scholars addressing the issue of Barthes' relationship with Marxism, Lecercle (2008) is probably the one who provides the most interesting aspects from the perspective of this investigation. In relation to Barthes' allegiance to Marxism he states that, despite the fact that Barthes distanced himself from the doctrine to the point of explicit rejection of the latter, 'there remains a Marxist substratum to Barthes' thought' (ibid.: 72). The key aspect of Lecercle's work, however, is that he highlights how the importance Barthes attributes to language (an aspect that will be addressed in the ensuing sections of the chapter) allows him to give a more comprehensive account of ideology, in comparison to Marxist theoretical elaborations. His contention is in fact that the question of the link between language and ideology, which is given primacy in Barthes' writings, is largely ignored in the Marxist tradition (ibid.: 77). 'Generally in the Marxist theory of ideology, [...] language is notoriously absent' (ibid.). What is truly noteworthy in that regard is that, even though he does mention Gramsci *en passant* (2008: 78; 80), he fails to acknowledge the fact that Gramsci does indeed highlight the link between language and ideology.

From Lecercle's perspective, language is precisely what Barthes can add to Marxist analysis. This is where Gramsci's theoretical elaboration becomes key, due to the primacy he attributes to language in relation to politics. Thus, it can be seen how Gramsci's and

Barthes' work is compatible at this specific level, for they both pay great attention to the role of language in political analysis.

Overall, the literature on Barthes' allegiance to Marxism provides interesting insights into the scholar's intellectual development, and in Lecercle's case an important consideration in relation to an element that both Gramsci and Barthes have in common and thus makes them compatible. Whether Barthes was Marxist or not is certainly an interesting matter, which however remains out of the remit of the thesis. What is truly relevant from the perspective of this investigation is the extent to which Gramsci's and Barthes' work is compatible, an aspect that will be further substantiated throughout the ensuing sections.

#### **4.2. Challenging Bourgeois Ideology: The Importance of Exposing Common Sense and Myth**

After having spelled out the ontological basis underpinning both Gramsci's and Barthes' early work, this section will show how the two scholars' writings share another important feature, as they are both motivated by similar concerns. In fact, they both developed stringent critiques of the capitalist system along similar lines, pointing at the role of ideology in creating the widely held belief that the system is natural, which in turn constitutes an obstacle to a critical appraisal of the latter on the part of subordinate classes.

The section will illustrate the notions of common sense and bourgeois myth as developed respectively by Gramsci and Barthes. The first subsection will focus on the concept of common sense (and the related concept of hegemony), which is the concept Gramsci uses to refer to the ensemble of widely shared ideas and beliefs that are

uncritically absorbed at the level of civil society and that are functional to the reproduction of the capitalist system. The second subsection will then turn to Barthes' notion of bourgeois myth, which plays an analogous function to the one played by common sense for Gramsci. The two subsections will thus highlight how the two scholars have more in common than previously highlighted; they both address the issue of ideology masking the character of social relations, either through common sense or myth.

#### **4.2.1 Gramsci and Common Sense**

As is clear to anyone with some knowledge of the literature dealing with Gramsci's work, the notion of hegemony has certainly drawn greater attention in academic writings than the notion of "common sense" and is widely regarded as Gramsci's most important contribution to political thought. Nevertheless, the importance of "common sense" should not be downplayed, especially considering the extent to which both concepts are closely related.

The value of the notion of "common sense" as developed by Gramsci lies in its ability to capture the potential of a social context to shape and influence actors' ideas, to varying degrees, in an unacknowledged fashion. This is implied in his definition of "common sense", with which Gramsci refers to 'the conception of the world which is uncritically absorbed by the various social and cultural environments in which the moral individuality of the average man is developed' (Gramsci, 2010: 419). In Hall's words, it is 'the terrain of conceptions and categories on which the practical consciousness of the masses of the people is actually formed' (Hall, 1986: 20). The key features of "common sense" are that it is fragmentary, incoherent and a 'largely unconscious way of perceiving

and understanding the world that has become “common” in any given epoch’ (Smith in Gramsci, 2010: 322).

The concept of “common sense” offers several interesting elements for the following analysis. First, the notion stresses the relevance of historicity, which is a central aspect of Gramsci’s writing more generally. Thus, Gramsci argues that “common sense” is specific to a certain historical period; it is a product of history (Gramsci, 2010: 326). How “common sense” comes into being is aptly explained through this quotation:

Every philosophical current leaves behind a sediment of ‘common sense’; this is the document of its historical effectiveness. Common sense is not rigid and immobile but is continually transforming itself, enriching itself with scientific ideas and with philosophical opinions which have entered ordinary life. Common sense creates the folklore of the future, that is as a relatively rigid phase of popular knowledge at a given place and time (Gramsci, 1996: 92).

Second, Gramsci highlights the uncritical character intrinsic to the notion of “common sense”. This aspect points to some degree of inability to appraise the established “common sense” on the part of the affected actors, however Gramsci is far from being pessimistic in his writing: in fact, there is the possibility to depart from “common sense” and, by developing one’s own consciousness, start critical elaboration.

Third, he makes reference to a structural aspect implied by the concept of “common sense”, as he highlights how social actors situated within a specific social context permeated by that “common sense” are influenced by the latter, at least to some extent. Gramsci does not go as far as to argue that there is a process of unconscious internalisation of social structure on the part of the social actors subject to that “common sense”, which is a position close to Bourdieu (Burawoy, 2012: 3), but he nevertheless acknowledges some influence on the actors within that social context, as they are socialised into it.

The concept of “common sense” is closely linked to the notion of hegemony. The specific character of “common sense”, as it is at a certain historical time, can be broadly seen as the outcome of the latter. In Ryner’s words, “common sense” is the ‘product of a hegemonic project through which the ruling power secures the consent of subordinate classes’ (Ryner, 2006: 66). In other words, in order to secure their power, the ruling forces advance specific understanding, beliefs and ideas at the level of civil society that are functional to maintaining a system that favours them; by instilling these in the societal tissue through various channels, they can establish their hegemony, i.e. rule through consent, rather than through coercion. This is exemplified by contemporary liberal democracies, in which the values and ideas widely circulated are the ones that allow the reproduction of the system. Therefore, the concept of hegemony allows a deepening of the question of agency entailed in the concept of common sense, as it highlights the role played by the dominant social forces in shaping it.

Hegemony can broadly be defined as the consent obtained by the dominant social group within a society as they impose their general direction on social life (Gramsci, 2010: 12). This occurs through the universalising of that social group’s norms and values, which then underpin the social order (Germain and Kenny, 1998: 17).

Gramsci articulates his notion of hegemony around his concept of historic bloc and his understanding of ideology. In short, “the intellectual and moral leadership” generates a ‘collective will’, which develops across society irrespective of class belonging and that acts as the organic cement that brings the ‘historic bloc’ together. This is one of the key aspects of Gramsci’s writing: he does not assume the leadership of a ‘ruling class’ as a whole in periods of hegemony, but rather the existence of ‘leading elements’ in the historic bloc, which may be only a fraction of the dominant economic class (Hall, 1986: 15). The other elements forming part of the historic bloc, in a subordinate position to

the 'leading elements', belong to the subaltern and dominated classes (ibid.). This historic bloc is forged and kept together thanks to ideology, which is embodied in the various institutions and apparatuses of society (Laclau and Mouffe, 1987: 67).

As a result, Gramsci sees a variety of elements as playing a role in the hegemonic project, all of which help to influence certain types of behaviour and expectations in line with the hegemonic social order (Cox, 1981: 164). In his studies Gramsci identified concrete historical elements such as the church, the educational systems and other institutions as playing an active role in reproducing the social order (Femia, 1975). Again, this makes reference to the concept of historicity, which runs through Gramsci's work, as he highlights how factors specific to the time in question shaped the "common sense".

In short, hegemony makes reference to dominant social forces forging what becomes the "common sense" of a specific historical time. In order to achieve this, these forces promote and instil a set of values and beliefs across society by making recourse to a great variety of channels. The purpose of such an endeavour is to underpin the social order in a way that does not require them to resort to coercion to ensure compliance on the part of the subordinate classes. In Cox's words this could be summed up as follows: 'Hegemony is enough to ensure conformity of behaviour in most people most of the time' (Cox, 1981: 164). In that sense, it makes sense to think of hegemony as the most effective form of exercise of power.

#### **4.2.2 Barthes and Myths**

Barthes developed the concept of myth at an early stage of his intellectual journey. Unlike in Gramsci's writings, where many of the conceptual elaborations are scattered throughout his work and deeply rooted in the concrete historical circumstances

analysed, in the last section of *Mythologies* (1957) Barthes provides a succinct chapter in which he addresses the notion of myth. In that chapter, Barthes explains in great detail how myth comes into being by making reference to notions and terms typically employed in semiological analysis. However, the aim of this subsection is not to venture into the intricacy of these terms. Rather, the subsection will attempt to provide a brief and accessible insight into Barthes' concept of myth, by outlining how the notion was initially developed, its key features and by illustrating it with the example of myth in bourgeois society, which bears great relevance for the current investigation.

In the preface to *Mythologies* (1957), Barthes explains how he first came to develop the notion of myth.

The starting point of these reflections was usually a feeling of impatience at the sight of the 'naturalness' with which newspapers, art and common sense constantly dress up a reality which [...] is undoubtedly determined by history. [...] in the account given of our contemporary circumstances, I resented seeing Nature and History confused at every turn, and I wanted to track down, in the decorative display of *what-goes-without-saying*, the ideological abuse which, in my view, is hidden there. Right from the start, the notion of myth seemed to me to explain these examples of the falsely obvious (2009: xix).

Thus, Barthes developed his notion of myth, defining it as 'a type of speech' (2009: 131) - but not just any type of speech. In order to become myth, language needs to meet some conditions. It should be noted from the outset however that this is not to be intended in terms of the means through which myth is uttered. As will be seen in greater detail in the last subsection of the chapter, according to Barthes, myth can in fact be conveyed by a great variety of materials (ibid.: 132).

A key aspect of myth is that it is a mode of signification, or put in other words, a message. As a consequence, myth cannot be determined by the object of its message, it is



not linked to any kind of intrinsic quality of the object in question. As long as it is conveyed by a discourse, everything can attain the status of myth (2009: 131). Indeed, what defines myth is the social usage attributed to the object in question. In that sense, myth has an historical foundation; it is historically contingent (ibid.: 132). And it is precisely this key feature of myth that the myth-reader cannot grasp, for the very principle of myth is that 'it transforms history into nature' (Barthes, 2009: 154). In other words, 'what the world supplies to myth is an historical reality, defined [...] by the way in which men have produced or used it; and what myth gives in return is a *natural* image of this reality' (ibid.: 169, emphasis in the original).

In order to illustrate the principle whereby myth transforms history into nature, Barthes makes recourse to the example of myth in bourgeois society. This example is particularly useful for the current investigation, since it further shows how Gramsci's and Barthes' analyses are closely linked, as they are both motivated by the desire to expose the mystifications that underpin capitalist society.

Barthes identifies myth in bourgeois society as depoliticised speech (2009: 169). According to him, what defines bourgeois ideology is precisely the abandonment of the name 'bourgeois' (ibid.). His argument revolves around the pervasiveness of bourgeois norms and their ensuing naturalisation. As bourgeois ideology penetrates intermediate classes, a process enacted through the dissemination of norms via various means, such as the press, rituals and consumption to cite only a few, the bourgeoisie universalises its vocabulary and thus undergoes a process of ex-nomination:

Everything, in everyday life, is dependent on the representations which the bourgeoisie *has and makes us have* of the relations between man and the world [...] [P]racticed on a national scale, bourgeois norms are experienced as the evident laws of a natural order – the further the bourgeois class propagates its

representations, the more naturalized they become [...] By spreading its representations [...] the bourgeoisie countenances the illusory lack of differentiation of the social classes (Barthes, 2009: 166- 167, emphasis in the original).

In other words, rather than appearing as something historically contingent, bourgeois norms appear as universal and natural, for they are purposefully conveyed in people's everyday life through a variety of channels. In turn, the consequences of this naturalisation are wide-ranging: the naturalisation stands in the way of the subordinate classes acknowledging the ideological character of bourgeois norms. Rather, these norms appear as unchangeable, thus leading to an 'impoverishment of consciousness' (ibid., 2009: 167) of these classes, which translates into their inability to appraise their social condition. Barthes concludes:

The flight from the name 'bourgeois' is not therefore an illusory, accidental, secondary, natural or insignificant phenomenon: it is the bourgeois ideology itself, the process through which the bourgeoisie transforms the reality of the world into an image of the world, History into Nature. And this image has a remarkable feature: it is upside down. The status of the bourgeoisie is particular, historical: man as represented by it is universal, eternal (ibid.: 168).

When looking at the way in which Barthes defines myth in bourgeois society, the similarities between his approach and Gramsci's are easily seen. First, as Barthes claims that myth has an historical foundation, he points out the importance of historicity, which is also key in Gramsci's work. Second, Barthes highlights how myth is received uncritically by subordinate classes, as he states that they cannot acknowledge the ideological character of bourgeois norms, due to the fact that these norms mask the historical character of social relations, making them appear as natural and unchangeable. The similarities between this feature of myth and the notion of common sense are obvious. Moreover, Barthes also highlights how such developments in bourgeois society

are not accidental, which echoes the notion of a hegemonic project found in Gramsci. Finally, Barthes also makes reference to everyday life, a notion that is not explicitly referred to by Gramsci, but which can be associated to his concept of common sense; in fact, common sense comes into being as ideas and values are conveyed at the level of civil society, which implies that actors are frequently exposed to them.

### **4.3. Culture as the Locus of Ideology**

This section focuses on the relevance of cultural elements for political analysis, another key element that Gramsci's and Barthes' approaches have in common. The first subsection will focus on Gramsci and the political character he attributes to language. Clarifying how language should be understood is key in this investigation, as part of the analysis of iRobot's branding strategy will be carried out by looking at the way in which the firm or its spokespeople employ language to construct the image of the firm.

In addition to language, the investigation also focuses on the use of a certain type of imagery employed by the firm. Since Gramsci has not addressed this type of cultural elements, Barthes' approach has been incorporated into the theoretical framework. The second subsection will therefore provide an overview of Barthes' reflections on the relevance of various types of cultural elements for political analysis.

#### **4.3.1. The Importance of Language in Political Analysis: Gramsci's Historicist Approach**

Although Gramsci writes about language only sporadically (Salamini, 1981: 29) and in an unsystematic manner, and despite the limited attention that this aspect of his

political analysis has received in the literature if compared to others, it is an important aspect of his work. The relevance of language in Gramsci's work is such, that if one wants to achieve an adequate grasp of his thought, language cannot be disregarded.

According to Salamini, the attention Gramsci pays to cultural phenomena, such as language, is consistent with his understanding of socialism as a 'reorganization of culture and the acquisition of a superior consciousness' (Salamini, 1981: 27), both of which play a primary role in the struggle for hegemony by the proletariat. Hence it becomes apparent how Gramsci's analysis of cultural phenomena, and thus of language, is undeniably political. In Gramsci's own words 'every revolution has been preceded by an intense critical effort of cultural penetration' (cited in Salamini, 1981: 27).

Even though language is generally not one of the main aspects that scholars working on Gramsci focus upon, at least in the English-speaking academic world, some scholars have attempted to combine Gramsci's concept of hegemony with linguistic analysis. However, in the most known case, this has led to a post-Marxist use of Gramsci that is hardly compatible with his thought. This is the position advanced in *Hegemony and Socialist Strategy* (1987) by Laclau and Mouffe. As Ives (2005) and Hardt and Negri (2000: 451) rightly point out, however, their approach is contentious, as they adopt an explicitly post-Marxist stand (Laclau and Mouffe, 1988: 3). Since Laclau and Mouffe's aim is to deny economic and class based analysis, their approach can hardly be reconciled with Gramsci's political thought without stripping it of its fundamental character. Even though with his concept of historical bloc he refers to some unity within society that transcends classes, classes remain a crucial focus in Gramsci's analysis and cannot be removed from Gramscian thought without perpetrating a distortion of his understanding of politics. If one considers the concept of hegemony, it becomes immediately apparent

how it relies on a class-based approach, centered as it is on the ruling power obtaining consent from subaltern social groups.

A good starting point for analysing Gramsci's understanding of language is by looking at his introductory notes on *The Study of Philosophy* (Gramsci, 2010: 323). In the first paragraphs of these notes, Gramsci advances the notion that 'all men are "philosophers"', even though they are so unconsciously, since "spontaneous philosophy", such as the one contained in language (and, interestingly for the purpose of this thesis, equally in "common sense"), belongs to everybody (ibid.). In that sense, he specifies that language needs to be thought of as 'a totality of determined notions and concepts and not just of words grammatically devoid of content' and as containing a 'specific conception of the world' (ibid.), i.e. a *Weltanschauung*.

This, in turn, according to Gramsci, is the starting point for critical elaboration. In fact, the "spontaneous philosophy" he refers to, which is contained in language, represents the level from which one can move to awareness and criticism, which implies the elaboration of one's own conception of the world. Hence, by becoming aware of the conception of the world contained in language, understood as a set of specific notions and concepts, one can move beyond these and develop one's own consciousness. In Gramsci's words, 'the starting-point of critical elaboration is the consciousness of what one really is, and is "knowing thyself" as a product of the historical process to date which has deposited in you an infinity of traces, without leaving an inventory' (2010: 324). Thus, one can conclude that language can be a starting point for analysis aimed at unveiling specific conceptions of the world, developing awareness and criticism with an emancipatory goal in mind.

Language as a *Weltanschauung* in turn raises the question of how that specific conception of the world came into being. This is where the Gramscian notion of hegemony comes to the fore. Gramsci defines language as an ‘element of culture and thus of general history’ (Gramsci, 1996). Most importantly, he understands language as the expression of interests of specific social groups (Salamini, 1981: 35) and linguistic changes as signalling the attainment of hegemony of a social class over society’s culture. In other words, far from being neutral and accidental, the way in which language evolves is linked to and reflects the existence of specific power relations. He underpins this claim by looking at concrete linguistic changes, both in terms of concepts and terms, and how these relate to changes in the political context (Gramsci, 2011: 94-96). He argues that language is a continuous process of metaphor, where ‘meaning is produced by having words ‘stand in’ or represent ideas that are usually expressed by different terms’ (Ives, 2005: 463). Thus, he considers the etymological origins of words and how the meanings attached to words change over time.

Gramsci provides the example of the history of the Italian language to illustrate how language is a political phenomenon (Gramsci, 1996). His analysis focuses on the development of Italian, which was originally the Tuscan dialect, as the national language. He first highlights how the various dialects that emerged in the Italian peninsula from the eleventh century developed in contrast to Latin, the language that for centuries marked the intellectual hegemony of the Catholic Church. The emergence of the various dialects on the one hand marked a break with medieval culture, feudal institutions and values, and was the expression of the newly emerged popular-bourgeois civilisation seeking to affirm its interests and values (Salamini, 1981). Yet, on the other hand, the attainment of status of national language for Tuscan, as it attained dominance over the other dialects, was determined by the intellectual hegemony of Florence (Gramsci, 1996: 20).

This example clearly demonstrates how language is crucial from a political perspective and how linguistic developments are an indication and an aspect of the struggle among social groups whose aim is to establish cultural and political hegemony, in the pursuit of their own interests. In Salamini's words, it attempts to show 'the practical and historical relation between language and the cultural and political hegemony of a given class' (1981: 39).

The concept of hegemony offers another example of Gramsci's approach to language, as it highlights how he re-elaborates concepts by attributing a new meaning to them (Sassoon, 1990; Ives, 2005). Before Gramsci's elaboration, hegemony was in fact typically employed to indicate dominance or power over. With Gramsci it started indicating consent and 'moral and intellectual leadership' (Sassoon, 1990: 18), which requires that a set of ideas and values become shared by various sectors of society (Laclau and Mouffe, 1987: 67).

In line with Gramsci's understanding of language, the empirical analysis of this investigation will therefore take language employed in a specific political and historical context as a starting point for analysis and investigate its specific use by iRobot, with the aim to reveal the values and notions contained within that language. This endeavor is based on the idea that

Every time the question of language surfaces in one way or the other, it means that a series of other problems are beginning to emerge: the formation and expansion of the ruling class, the necessity of establishing closer and firmer ties between the leading groups and national-popular masses, that is of reorganizing the cultural hegemony (Gramsci cited in Salamini, 1981: 35).

#### **4.3.2. Barthes: Myths and Imagery**

Similarly to Gramsci, Barthes also attributes great relevance to cultural phenomena in political analysis, however, he adopts a much broader focus than Gramsci. In fact, he lays great emphasis on the variety of means other than language through which myth can be uttered. His approach is particularly relevant with regard to the use of images. Barthes's approach to political analysis has much to offer to this investigation, as iRobot widely uses images to develop its narrative.

In *Mythologies*, the extent to which Barthes attributes relevance to means other than language in conveying myths becomes clear at the very beginning of his section on what constitutes myth. In fact, he argues, myth can be uttered via different types of materials, it is

by no means confined to oral speech. It can consist of modes of writing or of representations; not only written discourse, but also photography, cinema, reporting, [...] all these can serve as a support to mythical speech. Myth can be defined neither by its object nor by its material, for any material can arbitrarily be endowed with meaning (2009: 132).

In that sense, it is clear that his focus is much broader than Gramsci's. This also becomes clear when reading *Mythologies*, as throughout the book he focuses on the most disparate myths present in contemporary French society, uttered via a great variety of means.

Barthes raises a point with regard to pictorial materials, which is particularly relevant for the current investigation. In fact, he highlights that there are differences in the ways in which the myth reader perceives different types of materials. Specifically, pictorial materials, he argues, are 'more imperative than writing, as they impose meaning at one stroke' (ibid.: 133). Nevertheless, he adds, this does not represent a constitutive difference, for pictures become like some type of writing as soon as they are meaningful



(ibid.); they share the same signifying function as any other material (ibid.: 138). However, it seems that images can be thought of as particularly compelling means used to utter myth. This is also the stance adopted in this investigation, as is suggested by the strong focus on the imagery employed by iRobot.

A telling example on the use of imagery to impose certain meanings and reproduce certain myths can be found in Barthes' essay 'The Great Family of Man' (2009: 121- 124). In this piece of writing, Barthes focuses on an exhibition of photographs, whose purpose was to 'show the universality of human actions in the daily life of all the countries of the world: birth, death, work, [etc.]' (2009: 121), thus reproducing and nourishing the 'myth of human 'community''(ibid.). In that regard, Barthes points out how, at first, on one hand, the great diversity of the people represented is emphasised at various levels, for instance as exoticism is insistently highlighted, and how successively, on the other hand, this diversity is erased, as it is pointed out how despite these differences, there are greater unifying factors, such as birth, death and work, which are facts shared across the entirety of humanity. The consequence of constructing this myth of human community, Barthes argues, is that History is denied, as the historical modes with which these facts take place are forgotten, and as a result, injustices are neglected. He explains:

True, children are always born: but [...] what does the 'essence' of this process matter to us, compared to its modes, which [...] are perfectly historical? Whether or not the child [...] is threatened by a high mortality rate, whether or not such and such future is open to him: this is what the Exhibition should be telling people (Barthes, 2009: 123).

#### **4.4. Analytical Framework**

As the previous sections have shown, both Gramsci's and Barthes' approaches to political analysis can be reconciled at various levels. While Gramsci's and Barthes' work is used to explain iRobot's narrative, Cox is used to develop a broader framework, that situates the firm within the broader historical context in which the branding strategy was adopted. The framework allows to understand both why iRobot has developed the branding strategy along specific lines and the implications linked to its narrative.

In one of his seminal writings, Cox (1981) spells out his approach to political analysis. First, he draws the distinction between problem-solving and critical theory; while the first theoretical approach aims at achieving the smooth running of a given system, the latter adopts a critical stance toward the system and places emphasis on questioning its most fundamental aspects. Critical theory, he argues, 'is critical in the sense that it stands apart from the prevailing order of the world and asks how that order came about. [It] does not take institutions and social power relations for granted but calls them into question' (1981: 129).

Essentially, what critical theory does is take an aspect of human activity and construct the broader picture around it, in order to factor in the various forces at play in the situation examined, with the aim to understand both the initial aspect considered and the larger whole.

The picture of the configuration of forces is what Cox refers to as 'historical structure' (1981: 97). The forces he identifies are ideas, material capabilities and institutions and while these do not determine action in any mechanical sense, they do have an impact on both individuals and groups, as they define the parameters within

which these operate. The ways in which these forces interact is specific to every historical situation; thus, the configuration of forces must be derived from the study of particular cases. Cox also specifies that ‘the method of historical structures is one of representing [...] limited totalities. The historical structure does not represent the whole world but rather a particular sphere of human activity in its historically located totality’ (1981: 100).

Cox identifies three levels to which he applies the historical structure method: social forces, forms of state and world orders (1981: 138). Each one of them, he argues, can be represented as specific configurations of the abovementioned forces; at the same time, the three spheres of activity are interrelated and all influence each other. When these are considered in relation to each other, it is possible to attain a ‘fuller representation of historical process’ (Cox, 1981: 138), which is key for political analysis. Cox explains,

In reaching for a political-economy perspective, we move from identifying the structural characteristics of world orders as configurations of material capabilities, ideas, and institutions [...] to explaining their origins, growth, and demise in terms of the interrelationships of the three levels of structure (1981: 141).

In short, Cox’s method allows for an appreciation of the specific situation examined, as the various forces at play are mapped out and as connections between the various levels are drawn.

In line with Cox’s method, this section specifies the forces that have shaped the post 9/11 context. The historical structure should be considered keeping in mind that similarly to ideal types, historical structures ‘provide, in a logically coherent form, a simplified representation of a complex reality and an expression of tendencies, limited in their applicability to time and space, rather than fully realised developments’ (Cox, 1981:

137). For clarity purposes, a graphic illustration representing the historicised triangles is provided (Figure 4.1. – see below).

The forces identified in the historical structure are the following: widespread military ideas, including militaristic approaches to conflict (ideas), the military institution and DoD agencies, such as DARPA (institutions), and the military industry and technologies (material capabilities); in turn, these forces interact with each other. The widespread military ideas derived from the influence of the military institution; these ideas were spread at the societal level as a result of policies adopted by various US administrations that granted the military access to the civilian realm. The military institutions as a whole affected material capabilities, as they played a role in determining which military technologies were developed. The latter were also affected by the ideas present in society, as widespread military ideas tended to justify increased levels of spending to devote to the development of military technologies.

The historical structure is then applied to the three levels identified by Cox; social forces, forms of state and world orders. The structure impacted the social forces as people from lower social strata were increasingly recruited by the military, in order to meet the demands of the military institution in the context of the War on Terror. It also impacted the elites, as political elites devised policies aimed at confronting the terrorist threat, but also business managers, who attempted to make profits by capitalising on the situation, e.g. businesses establishing links with the military. iRobot can be thought in these terms: while it was already producing for the military, it developed its brand and narrative in line with hegemonic ideas present at the societal level.

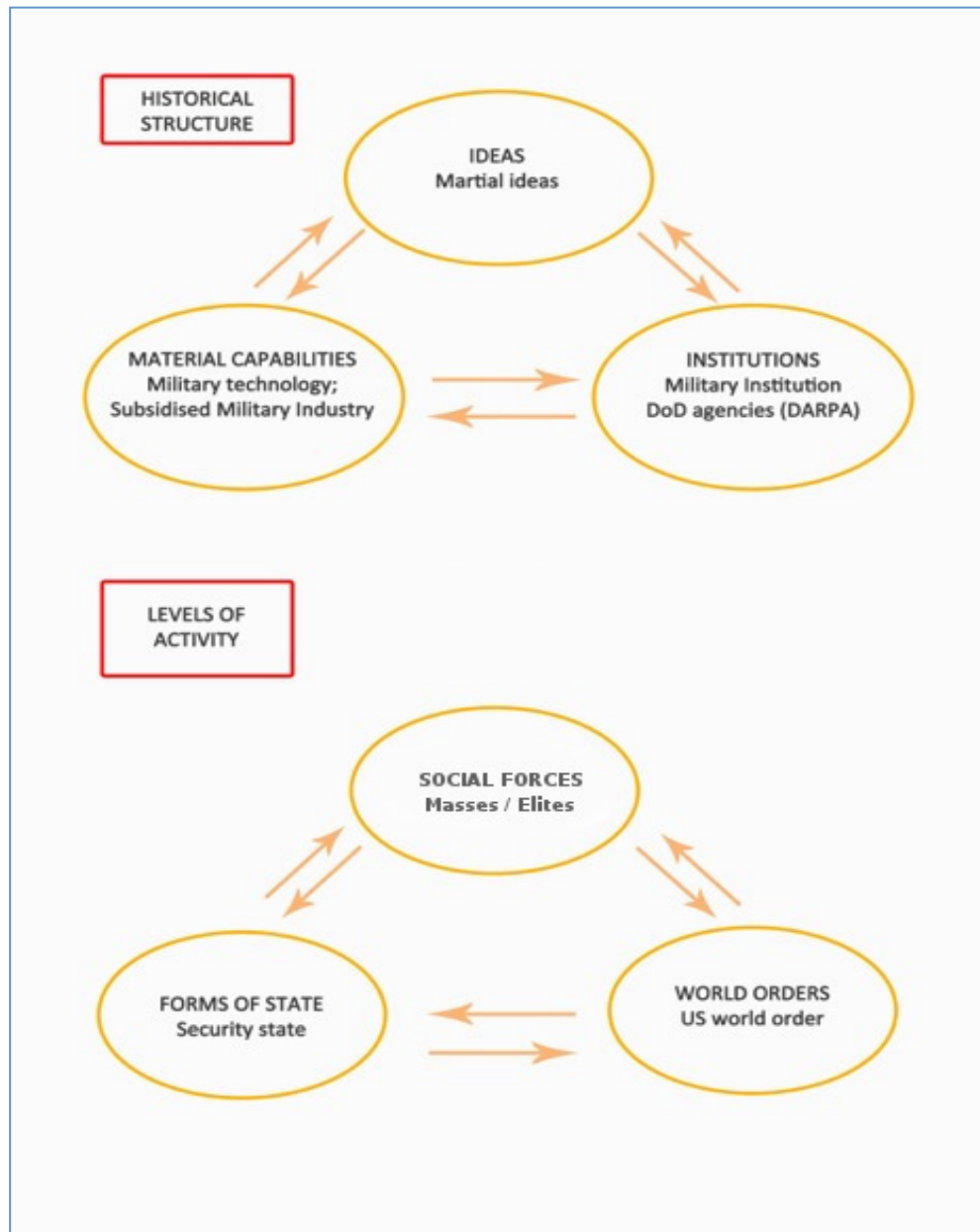


Figure 4.1. Framework inspired by Cox (1981)

The historical structure also had effects on the state, as it became increasingly focused on security concerns, leading to higher levels of surveillance in the homeland.

Finally, the historical structure impacted the world order due to the adoption of an aggressive foreign policy on the part of the US, in line with the military ideas present in society.

By considering iRobot within the broader picture, it can be seen that iRobot's narrative has important implications, as it contributes to diffusing ideas that have important consequences at the three levels of activity.

## **Conclusion**

This chapter has provided a more detailed insight into both Gramsci's and Barthes's theoretical elaborations than the one provided in the chapter detailing the research design underpinning the investigation. By explaining how Gramsci's and Barthes's theoretical elaborations are compatible at various levels, the chapter has contributed to providing a more solid theoretical foundation for the investigation.

The various sections of the chapters have demonstrated that both Gramsci's and Barthes's approaches are inspired by the Marxist tradition of political analysis; that they both attribute great relevance to the study of cultural phenomena in the study of politics, such as language and visual means, at least for Barthes; and they share a similar aim, as they both attempt to expose how common sense and myth contribute to the reproduction of the capitalist system, as ideology is circulated in society through various channels.

## **Chapter 5**

### **Blurring the Lines between the Civilian and the Military Spheres: “Robots that Make a Difference” at Home, on the Battlefield and in Schools**

*‘Saving lives and cleaning carpets – believe it or not, there is some overlap’, iRobot co-founder Colin Angle in Thomson Reuters, 2012*

#### **Introduction**

This chapter both identifies the blurring of the civilian and military spheres as one of the three core themes constituting the narrative through which iRobot constructs its self-image and argues that this theme contributes to giving the company's narrative a militarising character. This argument is made both with regard to the content, i.e. the specific messages and myths conveyed by the firm both textually and visually, but also due to the fact that iRobot has the ability to reach a wide audience through its presence on the web, in educational establishments, at public events, and in the media. The findings of this chapter contribute to providing the basis for the core argument advanced in the thesis; as the final chapter will show, the conflation of the civilian and military spheres is one of the ways in which iRobot reproduces ideas that are part of American militarised common sense.

The chapter demonstrates that the conflation of the military and civilian spheres is at the core of iRobot's narrative, as conveyed by both its brand and its marketing

efforts. This claim is corroborated by presenting the findings of both the textual and visual analyses of the data fitting the category "links drawn between the civilian and military divisions of the firm", identified while dividing the data collected from the various relevant sources according to overarching themes. This category contains the data on the ways in which iRobot constructs its public image by both emphasising its military character and connecting its two divisions, the domestic division called 'Home Robots' and the predominantly military division 'Government and Industrial Robots' (hereafter G&I) on its website, the iTube Channel, and the STEM Facebook webpage.

The findings show that iRobot's everyday domestic goods, such as the Roomba robotic vacuum cleaner, are fundamentally connected to the firm's military products in a myriad of ways, for instance through the use of specific linguistic and visual framing devices. Most importantly, through this narrative, iRobot presents the conflation of the military and civilian spheres as a given, as something that should not be questioned. In so doing, iRobot advances a militarising narrative, which challenges the separation between the military and civilian spheres that many think is necessary for the workings of democracy (Huntington, 1995; Rukavishnikov and Pugh, 2006). Once such a view is established, and the military is seamlessly integrated in civilian life, the dangers posed to democracy become harder to acknowledge for large sections of society. If iRobot contributes to the spread of this view, then its narrative contributes to the reproduction of a militarised society.

In order to support the claim that iRobot conflates the civilian and the military spheres, the chapter will examine how iRobot has highlighted its military character and explicitly linked its domestic and military divisions when constructing its public image. First, the chapter provides a brief overview of the ways in which iRobot justifies its



choice to emphasise the connection between the military and civilian spheres. Successively, the chapter focuses on both visual and linguistic elements conflating the two spheres on the company's website, its iTube Channel, through its SPARK educational programme and its STEM Facebook webpage.

### **5.1. Efficiency, Reliability and Affordability: How iRobot Justifies the Emphasis it Places on the Dual Character of the Firm**

Throughout the material examined, it appears that the justification advanced by the company's spokespeople for highlighting the military character of the firm is that it should be seen as advantageous from a consumer's perspective. The fact that iRobot's products are used by the American military, the argument goes, should testify their high quality, reliability and efficiency, particularly for a domestic use. In iRobot co-founder Greiner's words,

iRobot has robots deployed in Afghanistan and Iraq, helping our troops by destroying bombs. We learned a lot about reliability and quality by working on robots that can survive in combat. This type of experience prepared us to deliver robots that survive in unpredictable home settings. (iRobot, 2004e)

While the formulation used by Greiner might seem excessive, her line of reasoning is unassailable; the battlefield must certainly provide a challenging environment for robots.

Another related key argument advanced by iRobot spokespeople is that due to the fact that the firm equally produces robots for the military, it is able to offer consumers the most advanced technology at low cost. As is stated in two press releases, 'because iRobot also designs advanced robots for government [...] purposes,

it can offer consumers the most up-to-date technology at low cost' (iRobot, 2004c; 2004g).

Overall, while from a marketing perspective such a line of reasoning might seem sound, since the expertise of the firm in the field of robotics is likely to be valued by consumers for the various reasons mentioned above, iRobot's strategy of citing the military character of the firm also has implications that are more wide-ranging. In fact, such a strategy conflates the civilian and military spheres, a questionable practice in regimes that purport to be democratic, due to the incompatibility of martial values with democratic principles (Bacevich, 2005; Giroux, 2004).

## **5.2. The iRobot Corporation from the Early 2000s to the Present: The Conflation of the Military and Civilian Spheres on the Website and iTube Channel**

On the website for the American public the links between the domestic and the military divisions of the firm have long been made explicit in various ways. This is particularly relevant, since the website is likely to be one of the main contact points between the firm and the public. In fact, it is plausible that the website is the main source of information that potential consumers will refer to should they be interested in the firm's products, thus it is one of the key channels through which iRobot constructs its public image and through which it can circulate its militarising narrative.

Nowadays, the firm's military character becomes manifest both in visual and linguistic terms as soon as someone accesses the firm's website (Figure 5.1. – see below).

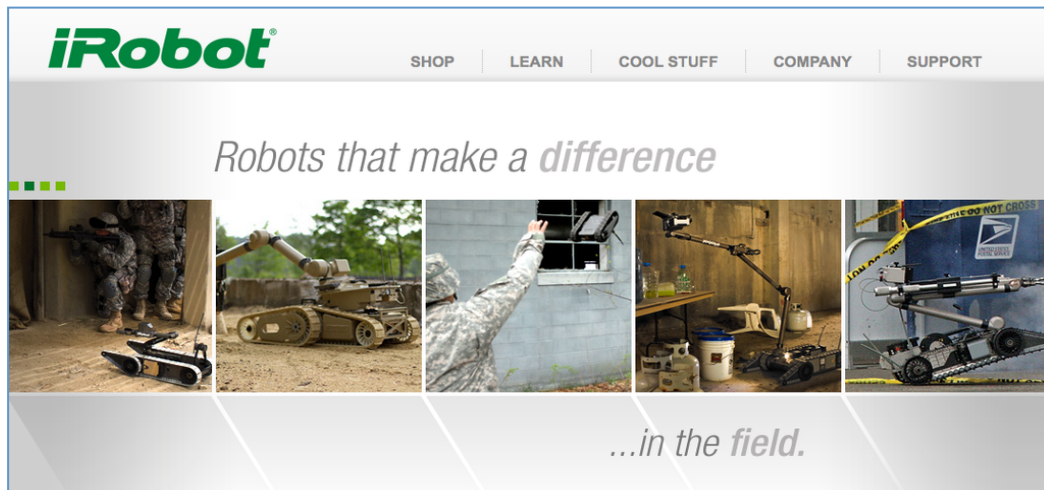


Figure 5.1. – Rotating Screen from the iRobot homepage in 2014

However, this was not always the case. While iRobot's association with the military sphere is to be found on the site as early as in 2000, it was not highlighted to a significant extent. Indeed, it started being emphasised more systematically only following 9/11, once the firm's first military PackBot had made its first appearance in the context of the rescue efforts following the terrorist attacks, and became prominent only over the following years.

A semiological analysis of the firm's homepages from 2000 onwards, retrieved through the Wayback Machine online archive, shows that overall the military element has increasingly been emphasised over the course of the years. This is inferred from the fact that the signs standing for the military character of the firm have progressively become more obvious and explicit. First, while the military character of the company was initially referred to through images of the PackBot, at a later stage the homepages also started featuring soldiers using military robots in the field. The references to the military character therefore became more explicit as iRobot started using images that are more clearly related to the military. Second, military elements have progressively

been assigned more spatial weight, in relation to the spatial weight assigned to civilian elements. While initially the signs recalling the military character of the company were small in comparison to the other signs, the former have become as big as the latter over the course of the years. As Rose (2001) points out, giving great spatial weight to an element of an image is a strategy usually employed to highlight the element in question. Furthermore, the military elements have progressively become more integrated with the civilian ones through the use of graphic framing devices connecting the signs featuring in the images. As Williamson (1978) and Goldman (1992) highlight, employing graphic framing devices is a commonly used technique to draw connections and transfer meaning between the signs featuring in an advertisement.

By the end of the year 2000, on the website there were only few explicit references to the firm's connection with the military and these were not visible on the company's homepage. One reference can be found on the webpage presenting their research and development (R&D) lab, which stated that the Defense Advanced Research Projects Agency (DARPA) was one of the company's main customers and that their funding was meant to develop robots performing dangerous tasks, e.g. mine disposal (iRobot, 2000a). The other webpage drawing those links was the one providing an overview of the company's Research Programs; in fact, several of the projects were described in terms of their potential for military use, such as the MUMS (Micro Unattended Mobility System), MUMS 2 and the Urban Robot (iRobot website, 2000b).

In 2001, as early as late September, the links between iRobot and the military became slightly more explicit. Contrarily to the previous versions of the website, the homepage featured an image of the PackBot and a link to a page containing detailed

information on the military robot (iRobot, 2001a – see figure 5.2. below). It should be noted that at that point the PackBots had only been used to search the site of the 9/11 attacks and not for operations on the battlefield. However, overall the image of the PackBot on the firm's homepage is less visible than in the following versions of the website. Furthermore, figure 5.2. shows how at that stage the other robots produced by iRobot were given much greater spatial weight and therefore visibility on the homepage. Also, while the other products are all aligned, the PackBot is represented in a separate box. While through the use of this graphic framing device the PackBot is emphasised to some extent, it also implies some distance between the latter and the other products.



Figure 5.2. - iRobot website homepage in late September 2001

Subsequently, the references to the dual character of the firm became increasingly present on the website, both textually and visually. Various press releases published both in late 2001 and 2002 made explicit references to the military character of some of the firm's robots. For instance, a press release announcing the receipt of

funding stated that the latter would be used to ‘address the rapidly growing markets for industrial, consumer, and military robotic systems’ (iRobot, 2001b) and contained a statement by co-founder Angle, who argued that ‘From the home, to the office, to the oil field, even to support the war on terrorism, our products will help improve the lives of millions of people’ (ibid.). This type of statement making reference to the various scenarios in which iRobot products are used has subsequently become widely employed on the part of the firm over the ensuing decade and beyond.

In 2002, the references to the PackBot increased even further across the website. The homepage (Figure 5.3. – see below) featured both an image of the PackBot and a link to the R&D webpage containing further details on the military robot (iRobot, 2002a), but also a link to the ‘Recent Press’ webpage, where most articles were centred on the development of the firm’s military robots (iRobot, 2002b), e.g. ‘Meet PackBot: The newest recruit’ (Robertson, 2002) and ‘PackBot could clear the way for ground robots in the military’ (The Washington Times, 2002). Thus, the new layout of the homepage also testified an increasing willingness to highlight the military character of some of the firm’s robots.

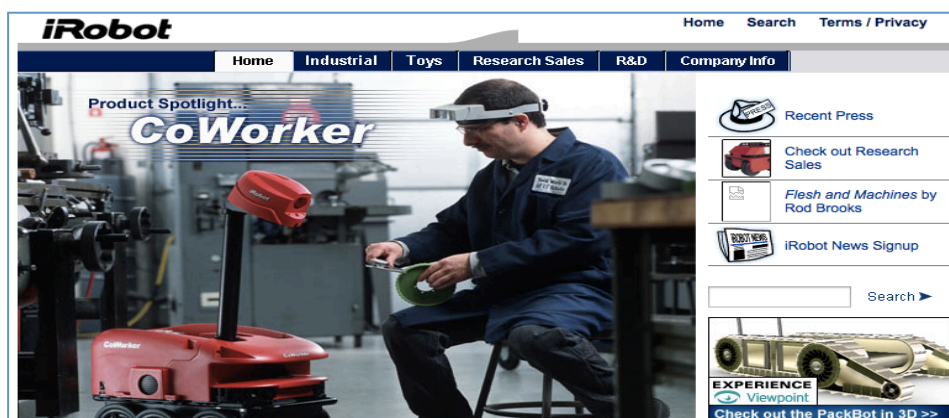


Figure 5.3. – iRobot’s website homepage in February 2002

In 2003, the amount of space devoted to the PackBot on the firm's homepage grew even further, occupying about one third of it, whereas another third was dedicated to the Roomba (iRobot, 2003a). Both the intention to highlight the military character of the firm and the links between the two divisions thus became more obvious, as both products were given the same spatial weight on the company's homepage. Furthermore, the homepage featured a link to a website entirely dedicated to the PackBot (iRobot, 2003b).

In 2005 and 2006, the homepage of the firm started making even clearer references to the dual character of the firm by including, along with images of the Roomba and the PackBot, some rotating screens alternating the image of soldiers employing the PackBot and the image of a family using the Roomba (iRobot, 2005b) (Figure 5.4. – see below). This is the first instance in which the military character of the firm is referred to by showing a soldier in the field, instead of using only a military robot. The military character is therefore referred to more explicitly, using an image that recalls the military character of the company in a more obvious manner. Furthermore, the use of the rotating screens also signals the intention to draw attention to the content of the alternating images. Overall, this homepage shows a much clearer reference to the military character of the company than all of the previous ones.



Figure 5.4. - iRobot's website homepage in 2005 and 2006, with rotating screens

In 2007, the imagery employed by iRobot to draw the links between the civilian and the military robots became even more explicit. The homepage of the firm presented one large photomontage occupying two thirds of the homepage and featuring, on one hand, a PackBot with soldiers in the background and, on the other hand, a mother with a child and a Roomba. Crucially, the lines between the domestic and the military scenarios were blurred – this time in a literal sense - and parts of the images used for the photomontage overlapped (iRobot, 2007a) (Figure 5.5. – see below).

This homepage presents various interesting features. Similarly to the previous homepage, the same spatial weight is given to the signs referring to the civilian and the military spheres, respectively. However, unlike in the other homepages, where the images referring to each sphere were kept separate through the use of a clear frame, this image suggests the intention to draw a stronger connection between the civilian and military spheres. The blurred boundary and the overlapping elements unify the two spheres, making them appear as being part of a whole.

The caption below the picture also unequivocally associates the two spheres, as it states that ‘Millions of iRobot’s cleaning robots and several hundred tactical robots are in use around the world today. iRobot’s innovative robots get the job done for you – meaning life easier and safer’. The last sentence is particularly revealing, as the term “job” is used to refer both to domestic work and military missions, despite the considerable differences between the two. Similarly, the notion that robots make life easier and safer seems to be intended both for a domestic and a military context, even though clearly these differ substantially.





Figure 5.5. - iRobot's website homepage in June 2007

In 2008, a new homepage version was released (iRobot, 2008a). On the latter, the civilian and military spheres were associated both visually, due to the content of the image and the use of a graphic framing device, and by the language employed on the part of the firm. First, the homepage featured both the Roomba and the PackBot (Figure 5.6. – see below); it also contained images in the background, showing a soldier on one hand and a woman with a dog in a domestic environment on the other hand. Second, the link between the two spheres was also strengthened by the use of a graphic framing device that connects the domestic and the military environments, and by the fact that part of the dog, which stands for the domestic sphere, overlaps into the military sphere. Third, the association between the two divisions is reinforced by the overarching title, which refers to the firm's robots as a single category, i.e. 'robots that make a difference', without making any reference to the differences between the two types of robotic products.



Figure 5. 6. - iRobot's website homepage in November 2008

In 2009, the homepage was modified again and started including a section on the firm's educational programme SPARK, which made reference to the fact that iRobot had made its first entry in education establishments with the stated goal of increasing interest in STEM subjects among young students (iRobot, 2009a) (see figure 5.7.). Thus, the firm started highlighting how it had made its entrance in another civilian sphere, in addition to the domestic one. This is the first version of the website that shows all of the key elements of the firm highlighted in this research, as it seamlessly integrates its military division, the domestic one, which is referred to through the captions 'Robots for the home' and 'Busy Moms' (it should be noted that this is an instance of iRobot using emotion-arousing terms; making reference to family bonds in relation to the military robots is a frequently used strategy of framing, which attempts to establish emotional bonds with the audience), but also the educational programmes. If one compares this version of the homepage to the one in late September 2001 (figure 5.2.), it can be seen that the firm has gone a long way in terms of the integration achieved between its various products and divisions. The connections between the military and the civilian spheres are more obvious, which contributes to tying them together more tightly.



Figure 5.7. – iRobot’s website homepage in October 2009 (iRobot, 2012a)

The latest version of the homepage is the one adopted in April 2012 (iRobot, 2012a). The homepage features four different rotating screens, each one representing scenes that refer to the different situations and scenarios in which the firm’s robots operate. These are represented both through the use of images and captions. In 2013, the locations were ‘the ocean’, ‘the field’ (i.e. the battlefield), ‘the home’ and ‘our schools’ (iRobot, 2013a) (Figure 8 – see below). In 2014, ‘the ocean’ has been replaced by ‘the workplace’, and the screen features a robot application for telepresence (iRobot, 2014a). Presenting the images in such a sequence seems to suggest an unwillingness to treat the various scenarios in a substantially different way on the part of firm. The military becomes only one among the various scenarios in which iRobot’s products can be used.

Thus, nowadays, from the moment an individual gains access to the website, he is confronted with the fact that iRobot produces robots for the military. The association with the military is further emphasised from a visual perspective by the fact

that some of the images on the ‘military robots screen’ feature soldiers wearing camouflage combat uniforms and using iRobot’s PackBots and the SUGV (Small Unmanned Ground Vehicle) during situations that seem to suggest that enhanced situational awareness is required (the first image in particular shows soldiers preparing to enter a building and sending in a robot first), even though those robots are also widely used by civilians. However, the only figures present on the ‘military screen’ are military, given their outfits.

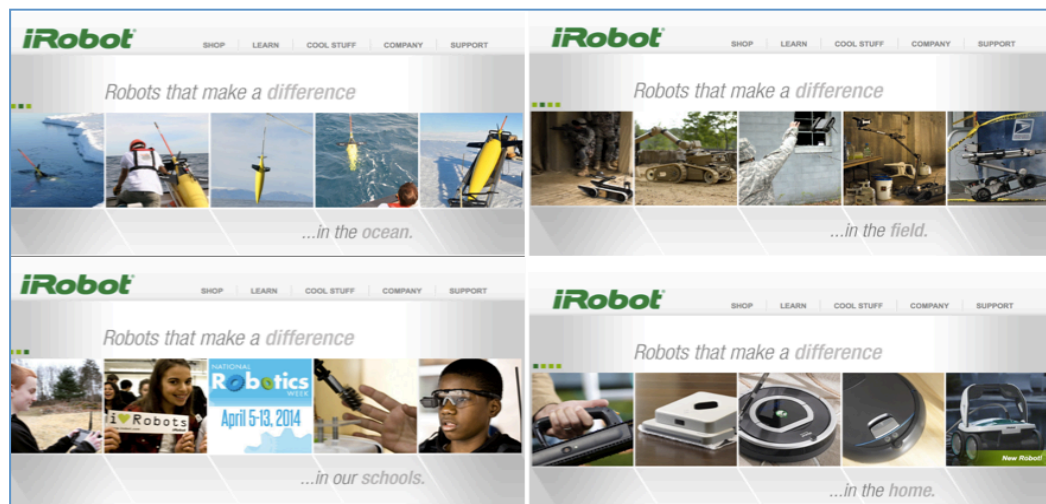


Figure 5.8. – The four rotating screens on iRobot’s homepage (iRobot, 2013a)

The other screens feature situations that explicitly belong to the civilian sphere, i.e. children using robots for educational purposes, robots carrying out housework and robots being employed for oceanographic research and telepresence in working environments. The interesting aspect that emerges from this association of images is that when taken together with the other screens, the military scenes appear to be merely one of the various ways in which robots are used; the military applications of iRobot’s products are not differentiated substantially from the other non-military ones.

This connection between the civilian and military spheres is also further reinforced by the use of linguistic elements in conjunction with the images present on

the webpage. In fact, for each of the four screens, the first part of the caption is identical, ‘Robots that make a *difference*’ (emphasis in the original), whereas the final part is specific to each scenario, ‘...in the *ocean*’, ‘...in the *field*’, ‘...in our *schools*’, ‘...in the *home*’ and in the ‘*workplace*’ (iRobot, 2013a) (emphasis in the original). Through the repetition of the first part of the caption, iRobot describes its robots in terms of a certain “function” that they perform in each of these distinct scenarios, i.e. “making a difference”. Clearly, the actual functions performed in each of these are very different, such as cleaning floors and gutters in a domestic sphere and helping soldiers to dispose of explosive devices on the battlefield. However, the use of the same caption about their robots making a difference establishes a unifying thread between the various tasks performed by the firm’s robots and thus contributes to blurring the lines between the civilian and the military spheres.

In the ‘Home robots’ section of the firm’s website, there are further obvious ways in which the two divisions are connected. If someone accesses the ‘Shop’ section present on the homepage, they are redirected to a webpage that mainly presents the domestic robots, but that nevertheless contains the image of a PackBot at the bottom, together with the caption ‘Defence and Security’ (iRobot, 2013a) (Figure 5.9. – see below).

Similarly, if one clicks the ‘About iRobot’ link on the webpage about domestic robots and selects the ‘Defense and Security’ link from the scroll-down menu, the first images that appear show some of the firm’s military robots (iRobot, 2013b) (Figure 5.10. – see below). In general, it seems that on most web pages, even those that are intended uniquely for a domestic commercial purpose, there are links to the military robots.

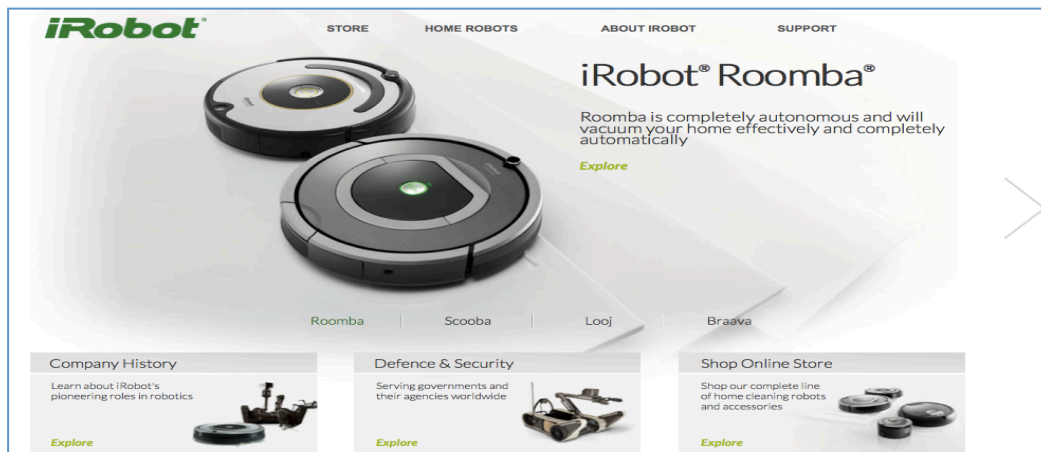


Figure 5.9. – The ‘Home’ section webpage, featuring a military robot at the bottom

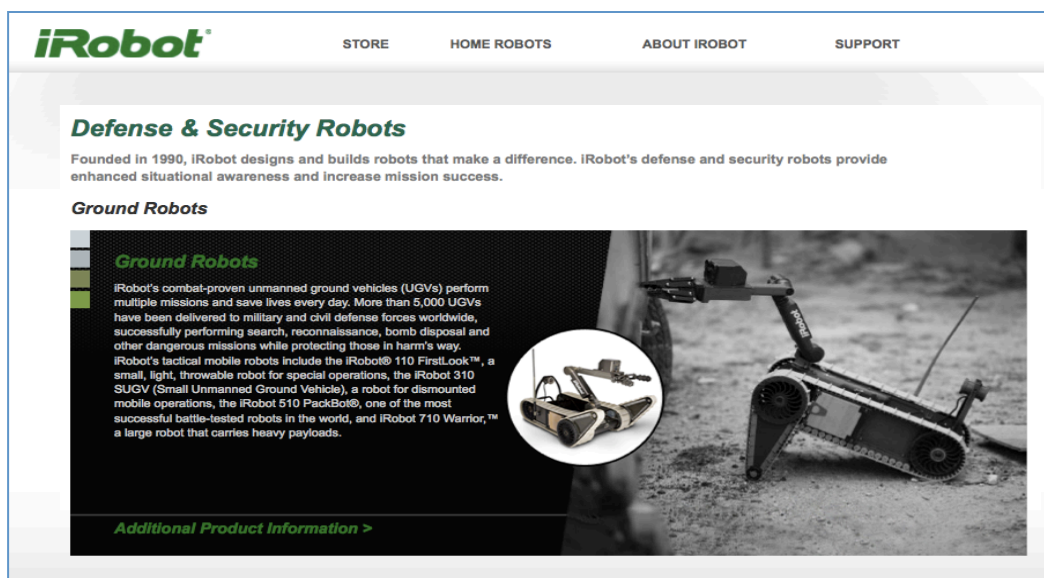


Figure 5.10. – The ‘Defense & Security Robots’ webpage, accessed through the ‘Home robots’ section

Overall, if one considers the ways in which the website has changed over the past 15 years, it becomes clear that there has been a clear progression in the ways in which iRobot has gradually emphasised its military character and blurred the lines between the domestic and the military spheres. At first, in 2000, there was little mention of the firm’s involvement with the military. Following 9/11, the emphasis

started shifting and the military robots started occupying an increasingly prominent position on the firm's website, e.g. as iRobot progressively assigned them greater spatial weight on the homepage. The military character of the firm was also further highlighted, as iRobot started using signs that are more obviously evocative of the military, such as soldiers, alongside the company's military robots. The links between the two divisions were also emphasised through the use of graphic framing devices that connect the signs standing for each division. Overall, the picture that emerges from the analysis of the firm's website is one where the military and civilian spheres are often presented as seamlessly connected, which gives the firm's narrative a militarising character.

This change in the firm's strategy can probably be ascribed to the fact that in the wake of 9/11 iRobot was involved in keeping US forces safe in the war in Afghanistan, a military intervention that enjoyed widespread support. From an American perspective, iRobot was playing an important role, protecting the country's soldiers. At the same time, the slow progression of the marketing strategy suggests a cautious approach on the part of the firm: it seems that iRobot was attempting to establish whether emphasising its military character would be an effective strategy over time. If highlighting the military character had been perceived as potentially damaging to the image of the company, it seems unlikely that iRobot would have kept stressing its links with the military. By the end of 2014, there were only a few web pages of the firm's website where the links with the military were not highlighted.

The firm's official YouTube channel, the iRobot iTube Channel, is another means employed by the firm to show off its military products and to draw the links between its two divisions. These are made explicit both in visual and in textual terms.

The iTube Channel was launched in 2009 (iRobot, 2009b) and clearly reflects the same type of emphasis that can be found on the website. In fact, the channel includes videos featuring both some of the firm's domestic and military robots (iRobot, 2014b). However, due to the fact that it was launched only in 2009, there is not a long progression of the channel to be found, like in the case of the firm's website. Nevertheless, it provides additional data on how the firm builds its public image.

The homepage of the iTube Channel (figure 5.11. - see below) clearly shows how when one accesses the channel, the videos on the iRobot Roomba (e.g. 'Dog vs. Roomba') and some of the firm's military robots (e.g. 'iRobot 710 Warrior Manipulator' or '310 SUGV') are presented on the same webpage. Once again, no distinction is made between the two divisions on one of the key contact points between the firm and the American people.

The spheres are also conflated in some of the videos and the description of the latter. For instance, the "iRobot History" video provides a brief account of the firm's history and features both the PackBot and the Roomba (iRobot, 2010a).

Two further examples of videos emphasising the dual character of the firm are the ones titled "Colin Angle's Keynote at Engineering Awesome Event" (iRobot, 2010b) and "Engineering Awesome" (iRobot, 2010c). In fact, both of them make various references to the military character of the firm. A noteworthy aspect linked to these videos is that they also testify that iRobot highlights its military production at events for a civilian audience. The Engineering Awesome event was predominantly organised to launch one of the company's latest technologies developed for the domestic range of robots, however throughout the video the military character of the company is heavily drawn upon.



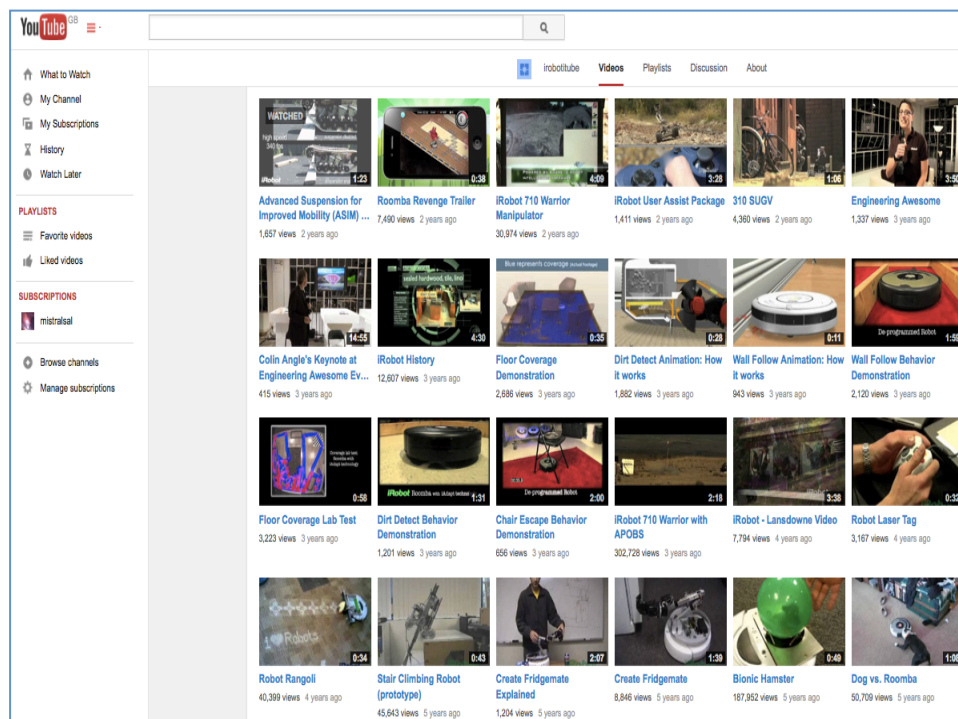


Figure 5.11. - iRobot iTube Channel on YouTube (iRobot, 2014b)

In the keynote speech given at the Engineering Awesome event, co-founder Angle also highlights the dual character of the firm as he first explains how the firm developed both robots used for military missions and domestic robots. The caption of that video equally refers to the company's dual character by stating that 'the company is making a difference on the battlefield, at sea, and in homes around the world' (iRobot, 2010c). Similarly to the examples taken from iRobot's homepage, the robots are grouped together as products that 'make a difference' no matter in which context this occurs.

Overall, the iTube Channel also presents the firm's two ranges of products as fundamentally connected, as the products are linked and referred to together both on the homepage and in some of the videos. The analysis therefore confirms that iRobot advances a militarising narrative, which rests on the company challenging the separation between the civilian and the military spheres.

### **5.3. Blurring the Civilian-Military Boundaries Through the Use of Metaphors and Other Linguistic Devices**

Metaphors are another widely employed means through which iRobot blurs the boundaries between the military and civilian spheres and advances its militarising narrative. Since metaphors, by definition, point to similarities across different domains, they invite the audience to conceive of one element in terms of another (Paris, 2002: 428). In so doing, they frame concepts in specific ways, selectively highlighting some of the aspects of the concepts referred to, while obscuring others (Lakoff and Johnson, 1980: 10)

A significant example of the two spheres being explicitly associated through the use of metaphors, which seems to suggest that military and household activities do not differ substantially, can be found in some of co-founder Colin Angle's statements. On several occasions, Angle argues that the firm's robots 'help people complete dull, *dirty* or dangerous *tasks* with better results, whether it is cleaning floors or disarming explosive devices' (iRobot, 2006a), or put in slightly different words, '[...] cleaning floors or keeping soldiers out of harm's way' (iRobot, 2006d – emphasis added to the original). One of the most interesting aspects about these two statements lies in the use of the word 'dirty'. In fact, while the other adjectives employed, i.e. dull and dangerous, can be more or less unequivocally associated to cleaning in the former case and to warfare scenarios in the latter case, the adjective 'dirty' can be used to refer to both. In fact, it can refer to the fact that Roomba is a robot that cleans floors, but the more noteworthy aspect is that it can also be understood in a metaphorical sense to refer to military missions, in terms of tasks that nobody wants to deal with. A well-known expression that exemplifies this use of the word dirty could be: "it's a dirty job but someone's got to do

it”, which can be used to refer to a great variety of situations. This use of the word ‘dirty’ is reinforced by the use of ‘tasks’ to refer indistinctly to significantly different activities, such as cleaning and disarming explosive devices. Moreover, the lack of distinction between the military and domestic spheres is also echoed in the use of the word ‘people’ to refer to both soldiers on the battlefield and civilians in a household.

The reference to ‘people’ to refer indistinctly to soldiers and civilians is also made by the firm on other occasions. ‘iRobot has a long commitment to building robotic products that make living safer and easier for *people in many walks of life* [...] iRobot has developed and built innovative products for the military [...] and the consumer marketplace’ (iRobot 2004a; 2005d – emphasis added to the original). This statement represents another example of the two spheres being conflated, as the ‘people in many walks of life’ that the statement refers to could be both soldiers and civilians.

The same metaphor is also employed on the part of iRobot in the “Careers” website section: ‘When you work at iRobot, you know you are making a difference. Whether you’re designing robots that help keep people safer in dangerous situations [...] or developing the next generation of practical, affordable robots for home use’ (iRobot, 2014e). The “making a difference” metaphor is a recurring one that is employed by iRobot, which connects the military and civilian robots, as it both highlights what they have in common and conceals what sets them apart. Overall, by using these metaphors, the firm makes some implicit statement about its products being used for “similar” functions (i.e. to deal with “dirty” jobs) and indistinctly by “people”, whether they are soldiers or civilians.

Joseph Dyer, former president of the G&I robots division, uses an interesting metaphor to refer to military personnel deployed in warfare scenarios: ‘Robots like the PackBot MTRS [Man Transportable Robotics Systems] are keeping *our sons and daughters*

safer [...] Simply put, these robots are saving lives' (Dyer cited in iRobot 2009e—emphasis added to the original). Referring to military personnel through the metaphor 'our sons and daughters' has various implications. First, military personnel are referred to in non-military terms. Second, mentioning family bonds implies making reference to the domestic sphere. Third, the metaphor has a clear emotion-arousing character, as it evokes family bonds, whereby it attempts to establish a connection between the audience and the soldiers employed in the war effort. In so doing, iRobot constructs and circulates the myth of a big American family, which includes all American citizens and obscures the differences between them.

It is noteworthy that the same metaphor had already been employed by a political authority visiting iRobot's headquarters, whose statement was then included in one of the firm's press releases. During his visit in 2006, Senator Kerry declared that '[t]he ability to send a robot, like the iRobot PackBots, to disable explosives in place of *one of our sons and daughters* means a life saved' (Senator Kerry cited in iRobot, 2006c – emphasis added to the original). Although the statement is not made by iRobot's spokespeople, the fact that it is included in the press release about the event is significant and reflects the intention on the part of the firm to transmit the message to the public. Moreover, the use of the same metaphor reflects some consistency in the ways in which military personnel are represented and thus suggests the existence of a specific discourse about thinking of troops involved in a war effort in terms of family bonds.

The press releases also contain other examples of metaphors used by political authorities that convey the conflation of the civilian and military spheres by referring to military personnel in non-military terms. A further example can be found in a statement included in one of the press releases and made by the spokeswoman on behalf of Senator Ted Kennedy, who referred to iRobot's military products by declaring that '[O]ur

courageous men and women serving overseas deserve the very best protection our nation can provide' (iRobot, 2008 f). Once again, military personnel are referred to in non-military terms.

Overall, these examples demonstrate that across the various sources analysed iRobot conflates the two spheres by using some metaphors that either put the tasks carried out by their robots under the same umbrella, even though the tasks are substantially different, or by using terms used typically belonging to civilian or non-military contexts to refer to soldiers. By using metaphors and emotion-arousing terms, iRobot can be seen to bridge the gap between the military and civilian spheres. By highlighting what its civilian and military robots have in common and concealing what sets them apart, iRobot challenges the division between the two spheres. As a result of this conflation, its narrative becomes militarising.

#### **5.4. iRobot's Educational Initiatives: How iRobot Attempts to 'Make a Difference' in Schools**

Launched in 2009, iRobot's SPARK initiative is an educational project that provides robot-related resources for educators, parents and students with the stated goal to develop STEM curricula and foster students' interest in the field of robotics.

Educational initiatives launched to foster young students' interest in robotics and other scientific subjects are not contentious in themselves; unlike the promotion of military values and ideas, these initiatives are compatible with a curriculum aimed at the students' development. The controversial aspect in iRobot's case stems from the fact that not only do they present the military applications alongside the domestic ones, as if these

were essentially similar products, i.e. mere robotic products, but they often seem to lay greater emphasis on the military robots. As a result, this section argues, iRobot plays an active role in promoting the military in schools, as they conflate the civilian and military spheres in a seamless fashion and depict the military applications in utterly positive terms throughout their educational activities.

It should be noted that iRobot's presence in schools and the large number of activities that they organise for students of various ages is particularly interesting both from a Gramscian and a Barthesian perspective. In fact, in his writings Gramsci attributes great importance to the role played by education in spreading and fostering the dominant values and beliefs of a society, which in turn is key for the reproduction of the hegemonic system (1965: 482). Similarly, for Barthes, presenting children with some ideas on the world of adult functions prepares them to accept them uncritically (2009: 57).

The first aspect that should be highlighted with regard to the SPARK initiative is that iRobot seems to have attributed great importance to it since its inception. In fact, from the moment the initiative was launched, in late 2009, it was given great visibility on the part of firm. The programme was immediately advertised on the company's website homepage (iRobot, 2009a), through the inclusion of a link to the SPARK website, and has been promoted ever since on iRobot's homepage (e.g. one of the four rotating screens on the homepage is currently dedicated to the 'robots that make a difference in our schools' and features images of students with robots). Thus, this testifies that iRobot has laid great emphasis on the company's involvement in the education sector for the past years.

The importance attributed to education is also echoed directly by co-founder Angle, who stated that he encourages all of the firm's employees to get involved with education, for instance by delivering talks in their children's schools on their jobs and the company's robots (Angle in Brown, 2010).

When considered from a marketing perspective this type of involvement on the part of the company could be easily justified in terms of the benefits that could potentially derive for the firm's image. In co-founder Angle's words, the initiative was launched due to the fact that

iRobot is committed to supporting STEM education in schools to revitalize the foundation of American innovation and competitiveness. Robots have the potential to play an integral role in learning. They excite students and can be important cogs in the teaching process, providing new ways of thinking for students by illustrating abstract concepts that were difficult to teach before their integration into the classroom (Angle in Businesswire, 2009).

On another occasion Angle also stated that "giving back" is part of the firm's core missions (Angle in Brown, 2010). By showing the firm's direct commitment in the local community and their overarching aim to boost both innovation and the competitiveness of the US in the field of robotics, it is plausible that the company has been attempting to enhance their image in the eyes of the American public.

However, the implications of their involvement in education are more wide-ranging, as they equally bring military applications into the classroom and depict them in utterly positive terms, thus blurring the lines between the military and civilian spheres and creating barriers for a critical appraisal of the implications deriving from the firm's practices in schools. As key sites for the production of knowledge, values and ideas,

educational establishments play a crucial role in society, which makes the fact that iRobot can present its militarising narrative in such settings particularly problematic.

On the SPARK initiative website there are various ways in which the firm familiarises students of all ages with their military robots, thus contributing to the conflation of the two spheres. This occurs both through textual and visual means, in more or less explicit ways.

From the perspective of this investigation the section on the SPARK website called “Cool Stuff” offers various interesting elements, which illustrate how iRobot emphasises its military character when interacting with students of all ages. In the “Discover” section, there are clear references to the military applications of some robots. First, the robotics timeline makes reference to the PackBot and presents it as follows: ‘iRobot PackBot is deployed to Afghanistan where is used [sic.] by US warfighters for advanced recognizance against the Taliban. By 2003 PackBot will be in routine use across Afghanistan and Iraq for recognizance and explosive ordnance disposal work’ (iRobot, 2010e). Second, there is a subsection called “Inspiring quotes” featuring quotes taken from various people, ranging from illustrious scientists such as Leonardo da Vinci and Albert Einstein, to President Obama and co-founder Greiner. Most of these quotes are quite generic and tend to refer to the notion of human progress and the importance of creativity. However, the list of inspiring quotes also includes one by Joe Dyer, the president of the Government and Industrial division of the time, which makes explicit reference to the military use of some of the firm’s robots: ‘With the addition of more robots, the future battlefield will be more survivable’ (iRobot, 2010e). However, what this quotation actually means is that the battlefield will become more survivable *for American forces*. Depending on the robots employed, i.e. if they are of an offensive type,



the lethality of operations might actually increase dramatically for the opposing forces. Most importantly, it should be kept in mind that the addition of robots might even tip the balance in favour of a greater number of military interventions on the part of American forces, given the reduced risks entailed for soldiers deriving from the deployment of robots. Since it seems that casualty aversion has been an overriding concern for American leaders when deciding whether to engage in warfare, the possibility to make recourse to robots is likely to lower the threshold for the use of force.

In the “Cool Stuff” section, there is also evidence of the fact that the corporation even targets young schoolchildren when emphasising its military character. In fact, there is a web page with downloadable images of robots for children to colour. Among the various images of robots, there is also the Negotiator, a robot that falls within the category of military products (iRobot, 2010f) (see below – Figure 5.12). While in general the promotion of the military in civil society is problematic for democracy, the fact that children of such young age are exposed to military products is an even bigger issue. In fact, as was pointed out by Barthes (see chapter 3), since children lack the ability to reflect critically on what is presented to them as natural, they are more likely to accept the features of a world that is constituted for them (Barthes, 2009: 57).

The conflation between the two spheres is also further reinforced by the ways in which the firm directly interacts with students. A significant example is given by the modality in which the visits occur in schools, for instance in the context of the “20 in 20” STEM Education Initiative (iRobot, 2010g). On the occasion of the company’s 20<sup>th</sup> anniversary, the firm launched a robotics road show with the goal ‘to give demonstrations and presentations on robotics technology to elementary, middle and high school students’ (ibid.) across Massachusetts.

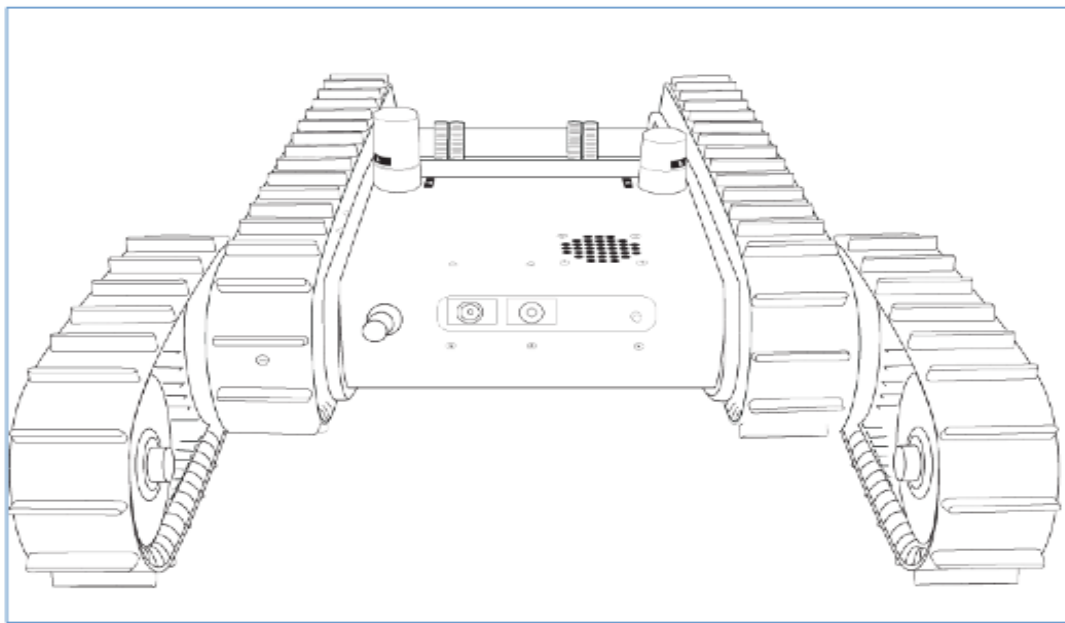


Figure 5.12. – The image of the iRobot Negotiator that can be downloaded from the SPARK initiative website

The “20 in 20” road show initiative is particularly relevant for the purpose of this investigation, as it provides the opportunity to gain an insight into the ways in which iRobot’s team presented robotics to students. In fact, the various stages of the road show were documented on a blog (iRobot, 2010h), which includes photos and videos of the demonstrations and presentations given. Therefore, it is both possible to get an idea of the products presented to the young audience and also how the firm wants to publicise the various events.

One noteworthy aspect of the road show is that, as Angle explains with regard to the latter, ‘iRobot likes to come into the classrooms during the school day when the kids are already absorbing knowledge, and not show off their robots as an after school or special assembly activity’ (Angle in Brown, 2010). Thus, the shows and demonstrations take place during the students’ standard school time, alongside their other habitual subjects. In turn, the practice of including the presentations into students’ standard

school days, leads to them being put on the same level as any other didactic activity. Thus, this practice is likely to reduce the scope for critical appraisal of the implications linked to the firm's presence in schools.

A further interesting practice that emerges from the blog dedicated to the "20 in 20" robotics road show is that the military robots such as the PackBot and the SUGV seem to be given greater attention than the domestic ones, both in visual and textual terms. A significant example can be found in the first entry on the blog, which consists of one of the educators taking part in the project introducing herself. The interesting element in that regard is that she stated that her 'favorite aspect of having a job in this field is that the difference it makes is saving lives. Robots at iRobot have saved many soldiers lives and will continue to do so' (Martins in iRobot, 2010h). Thus, the martial character of the firm is heavily emphasised and presented as the most noteworthy aspect of iRobot's achievements. Furthermore, the "making a difference" line has been widely employed by iRobot, both with regard to its military and domestic robots. This shows that there is some consistency between the way in which the firm is presented in schools and the image that it has built in the preceding decade. Overall, this suggests that there is a precise strategy behind every means employed on the part of the firm when constructing its image.

Another interesting aspect that emerges from the blog on the road show is that on several occasions the military robots are presented as the most fascinating robots produced by iRobot. Even though the Roomba is mentioned on various occasions across the blog, in comparison it receives less attention. In fact, while on the blog dedicated to the road show the Roomba is mentioned only 8 times in total, the SUGV is referred to 35 times and the PackBot 3 times (iRobot, 2010h). Also, in the various descriptions of the events, it appears that the military robot is generally referred to with greater

enthusiasm than the domestic one. For instance, the blog recounts various episodes that occurred during the presentations that clearly show how the military robots are placed at the centre of attention; e.g. ‘we not only had a Roomba to demo, but we also had a SUGV 320! [...] patrolling around the students to give them a closer look.[...] The students were very attentive and interested, particularly in the SUGV’s ability to climb stairs’ (iRobot, 2010h); ‘[the students] were all fascinated by the 310 SUGV’ (ibid.); ‘we were able to bring a SUGV [...] to our presentation today. As soon as it moved, all of the students clapped with much cheer’ (ibid.); ‘[the students] really loved our demo of the SUGV. We started on stage then drove it down a set of stairs so the students could get a closer look’ (ibid.); ‘the most exciting part of the day was when we drove the 310 SUGV around the gym floor where the students were sitting’ (ibid.); ‘Driving the SUGV around the school was a blast too’ (ibid.); ‘the students were eager to see the robot up close when we gave the SUGV demo’ (ibid.); ‘We had the Roomba and 310 SUGV with us, and the students went wild for both of them! [...] Driving the SUGV up and down a set of stairs [...] was fun, but not as fun as driving it right up close to the students’ (ibid.); ‘the students [...] were very interested in the 310 SUGV’ (ibid.); ‘[the students] liked everything we had to present to them, particularly when the 310 SUGV went around them in the audience’ (ibid.). These examples show both how the SUGV is given great importance during the presentations in schools across the state and how the educators updating the blog emphasise this aspect of their presentations.

Moreover iRobot educators establish a great degree of proximity between the students and the robots (iRobot, 2010h). This is revealed by the various descriptions of the tour stages, in which they state that they drive the SUGV close to the students, but it can also be seen on the photos published on the blog. In fact, not only are there various pictures featuring the military robots patrolling around the students (see below – Figure

5.13.), but there are also pictures showing students posing with the company's robots (see below – Figure 5.14.).



Figure 5.13. –Military robots approaching students in various Massachusetts schools (“20 in 20” blog)



Interestingly, on the blog there are several pictures featuring both a Roomba and a military robot (see below – Figure 5.14.) and several images where students are posing uniquely with a military robot but none with the Roomba alone (Figure 5.15 – see below). Once again, this seems to suggest that the military robot is given greater visibility on the road show blog, in comparison to the domestic one.



Figure 5.14. – Groups of students posing with the Roomba and the SUGV



Figure 5.15. – Group of students posing with the SUGV

In addition to visiting schools, iRobot also offers the possibility for groups of students to visit the company’s headquarters. On the STEM webpage, it is possible to get an insight into the visits offered by iRobot. In fact, the webpage features a link to the virtual tour of the “Cool stuff museum” (iRobot, 2013c), which is included in the tour of the company’s headquarters. The video shows once more how the two divisions are associated and how the military character of the firm is heavily drawn upon. The first scenes show in fact the presenter of the tour standing with a poster featuring an image of the PackBot in the background, followed by a sequence of images alternating military and domestic robots in action. The video then includes an overview of the firm’s various robots. The PackBot receives particular attention. The role played by the PackBot on the battlefield is greatly emphasised, as the presenter shows one of the robots blown up while disposing of explosive devices and adds:

One of the coolest things we do is we really do change the world and we make a difference and one of the ways that we make a difference through those robots [...] is out on the battlefield. When you look at what happens to some of these robots when they get blown up or when they come back from the war field this is what they look like. [...] a person did not have to be put in

harm's way.[...] it's amazing how many lives [...] this one robot saved and it makes you feel good that you work for a company that actually truly does make a difference and these robots are doing it every day (Smith in iRobot, 2013c).

This excerpt of the virtual tour and the fact that a robot that was blown up in the battlefield is displayed during the tour both exemplify how much attention is given to the firm's military robots during the "Cool Stuff museum" tours offered to students.

Another resource that provides information on the dynamics of the interactions between iRobot and school children is the iRobot STEM Facebook page (iRobot, 2013d). Even though it has only a low number of members, which might indicate a relatively low visibility among the American audience, the page contains a wealth of pictures taken at various events attended by iRobot. Thus, the interesting aspect in that regard is that it is possible to gain an insight into the interactions between the firm's military robots and children of all ages.

Figures 5.16. (iRobot, 2013e) and 5.17. (iRobot, 2013f) show some examples of pictures that can be found on the STEM Facebook page. Both pictures in figure 16 show that military robots were shown on several occasions in which the firm was in contact with the public, including young school children, whereas figure 5.18. shows a young girl using a controller to steer an SUGV (iRobot, 2013g). It should also be noted that in figure 5.16., the PackBot features alongside R2-D2, a robot from the Star Wars saga that is particularly popular. Showing the two robots together is symptomatic of the firm's intention to present the PackBot in a positive light.

In sum, when iRobot participates at events with the general public, they lay particular emphasis on the military character, allowing children to get close to the military



robots and even steer them around, which in turn is consistent with their overall branding and marketing strategies.



Figure 5.16. – iRobot at Family Science Day



Figure 5.17 – iRobot at Boston Regional Science Fair (iRobot 2013f)



Figure 5.18 - Young girl steering a SUGV (iRobot, 2013g)

Overall, throughout its educational initiatives and the public events in which it takes part, iRobot emphasises its military character and conflates the civilian and military spheres by presenting them together, which gives its narrative a militarising character. The fact that iRobot is granted access to schools and that it can convey its narrative in that particular setting is particularly relevant, as educational establishments are crucial sites where the production of knowledge and ideas occurs.

## **Conclusion**

This empirical chapter has demonstrated that following 9/11 the conflation of the military and civilian spheres has become one of the core themes constituting iRobot's narrative and has argued that this theme confers iRobot's narrative a militarising character.

iRobot has increasingly blurred the lines between the civilian and military spheres through the use of both visual and textual means. The analysis of the visual data has shown that the military character of the company has progressively been emphasised and that the civilian and military spheres have increasingly been connected. On the firm's

homepage, this has been achieved by increasing the spatial weight dedicated to the signs referring to the military character of the firm, by using graphic framing devices that draw connections between the company's ranges of products, and between the domestic environment and the battlefield, and by using signs that explicitly refer to the military sphere. These connections have also been found throughout the website and on the company's iTube channel on YouTube, where both the domestic and the military products are presented jointly.

The conflation of the military and civilian sphere has also been achieved through the use of specific linguistic framing devices. Through the use of metaphors, iRobot has emphasised what all of its robots have in common, e.g. they all make a difference in peoples' lives, whether they are civilians or soldiers on the battlefield. Crucially, the use of these metaphors has also contributed to obscuring what differentiates the two ranges of robotic products. Moreover iRobot has also frequently used emotion-arousing terms to refer to soldiers. By referring to the latter with terms invoking family bonds, iRobot advances a myth of a big American family that includes all US citizens and does not differentiate between soldiers and civilians.

Most importantly, through the conflation of the military and civilian spheres across the various channels that iRobot uses to construct its self-image, the company conveys a militarising narrative, based on the denial of the separation between the civilian and military spheres and which encourages military presence in civilian settings.

Overall, this chapter contributes to the overarching argument of the thesis by identifying one of the core themes conveyed in iRobot's narrative, which will be used in the final chapter of the dissertation to demonstrate that iRobot taps into ideas that are established among large sections of US society and that are part of American common sense.

## **Chapter 6**

### **iRobot and Warfare robots: How iRobot Constructs the Image of its Military Robots in “Security-Enhancing”, Defensive and Pro- American Terms**

#### **Introduction**

This chapter identifies two main themes at the core of the narrative developed by iRobot as it constructs self-image; these are the security-enhancing character of the firm's military products, notably for American troops, and the defensive character of these robots. Each of these themes, the chapter argue, contributes to iRobot's militarising narrative. By highlighting how its military robots reduce the risks for American soldiers in combat scenarios, iRobot contributes to lowering the barriers to military intervention and effectively promotes a militaristic foreign policy. Moreover, by conflating defensive and offensive military means and strategies, iRobot promotes military intervention to deal with international conflict, while challenging the existing norms on the latter. The findings of this chapter contribute to the development of the overall argument of the thesis; together with the findings of chapter 5, they will be used to demonstrate that iRobot's narrative taps into a set of ideas constituting American militarised common sense, which in turn explains why the narrative resonates with large sections of the US public.

This chapter presents the findings of the analysis of the textual and visual data fitting into the categories "descriptions of iRobot's military products in terms of their role for soldiers and of the missions the robots are involved in", "partnerships with other companies" and "links with the US military". The data in these three categories allow to gain a deeper insight into the way in which iRobot constructs its self-image, beyond the mere emphasis it places on the military character of the firm and the links it draws between its two divisions, identified in chapter 5.

The analysis of this data demonstrates that iRobot makes use of various linguistic devices, such as dichotomies, metaphors, and emotion-arousing terms, together with visual elements, that frame its narrative in specific ways. The picture that emerges is one where iRobot's military products are presented solely in security-enhancing and defensive terms for the benefit of the American military and, by extension, the US as a whole. Moreover the chapter shows that iRobot also makes use of myths, such as the myth of clean wars and the myth of a just preemptive war, which contribute to further strengthen the militarising narrative of the company, as they frame American interventions in specific ways.

In order to show how iRobot develops the two core themes revolving around the security-enhancing and the defensive character of the company's military robots, this chapter examines the textual and visual language employed by the company when referring to American military forces and their missions, and when explaining the role of its military robots in combat scenarios, paying particular attention to the linguistic and visual devices used.

### **6.1. iRobot and the US military**

This section argues that the firm's narrative on its relation to the US military has a militarising character, as it endorses the military interventions in Iraq and Afghanistan, and justifies military spending, when presenting the needs of US soldiers as a pressing national priority. The first subsection shows how iRobot explicitly sides with US troops involved in the war efforts in Iraq and Afghanistan. It argues that this is achieved by using the "us" versus "them" dichotomy throughout the press releases and other means of communication employed by the firm. The second subsection looks at other ways in which iRobot highlights its links with the military in terms of the benefits that derive for American troops, both when it presents its military contracts and the hiring of retired military personnel to work for its G&I division. This is done through the use of the "us versus them" dichotomy and the use of emotion-arousing terms.

#### **6.1.1. iRobot and the "Us versus Them" Dichotomy**

Dichotomies are widely employed linguistic devices that frame messages in specific ways, as they create and defend boundaries between categories. In particular, the "us versus them" dichotomy is a strategy commonly employed for positive self-presentation and negative other-presentation (van Dijk, 2006: 373).

The "us vs them" dichotomy emerges rather clearly from the language employed both in the firm's press releases and its website. This can be seen in the frequent use of the possessive adjective "our" when referring to American forces. More specifically, in the press releases there are frequent references to '*our* soldiers'

(Greiner cited in iRobot, 2005f; 2005h; Greiner cited in 2006b; Dyer cited in 2007b – emphasis added to the original), ‘*our* troops’ (iRobot, 2005f; 2005h; Greiner cited in 2006b; Kern cited in 2006e; Dyer cited in 2007i; Dyer cited in 2007j – emphasis added to the original), ‘*our* warfighters’ (iRobot 2005f; Dyer cited in 2007d; 2008b; 2008d; 2008e; 2008g; 2009c; 2010j – emphasis added to the original), ‘*our* military personnel’ (Dyer cited in 2004e; 2005f; 2008b; 2008c; 2008d; 2008g; 2009c; 2010j – emphasis added to the original) and ‘*our* nations’ soldiers’ (Dyer cited in 2004a; Dyer cited in 2004d; Dyer cited in 2005c – emphasis added to the original). The frequent use of the possessive adjective explicitly reflects the firm’s intention to side with American troops.

Similarly, on the website iRobot highlights the role of its robots on the battlefield in terms of the benefits deriving for American soldiers: ‘*Our* robots continue to keep *our* soldiers safer in Iraq and Afghanistan’ (iRobot, 2011 – emphasis added to the original). In the latter case, the use of the possessive adjective is further reinforced by the use of ‘our’ to refer to both ‘robots’ and ‘soldiers’, as if the possessive adjective referred to the same entity. Further references to the American forces in these terms can equally be found on iRobot’s iTube Channel on YouTube, where they are referred to as ‘our soldiers’ (iRobot, 2010b) and ‘our service men and women’ (iRobot, 2010c).

The press releases also contain some statements made by political representatives that echo and are consistent with iRobot’s use of the possessive adjective when referring to US soldiers. American troops are in fact referred to as ‘our sons and daughters’ (Senator Kerry cited in iRobot, 2006c) and ‘our courageous men and women serving overseas’ (Senator Ted Kennedy’s spokeswoman cited in iRobot, 2008f), when the representatives discuss the benefits deriving for American forces from the use of iRobot’s military robots. In itself, the use of these expressions on the part of political representatives is less remarkable than in iRobot’s case, as it appears to

be consistent with their institutional role, as representatives of the American nation. However, the use of these quotations on the part of iRobot demonstrates the firm's intention to both highlight the extent to which some political figures recognise the importance of their contribution in keeping American soldiers safe and that they share the same feelings as the rest of the nation when it comes to US soldiers.

The other element that contributes to the coming into being of the “us” versus “them” dichotomy is the negative ways in which the forces opposed to the American ones are depicted, which reflects the attitude consisting of discriminating the “other”. In fact, these are explicitly referred to as ‘terrorists’ (iRobot, 2004e; 2004f; 2005c), ‘hostile forces’ (iRobot, 2005c) or ‘insurgents who are littering Iraq with thousands of improvised explosive devices’ (Greiner cited in iRobot, 2006b). These appellatives have an evident negative connotation and signal the existence of an antagonistic relationship with the “us”.

From the data gathered one can thus infer that explicitly siding with US troops and identifying with the American cause in the battle against terrorists has been a recurring feature of iRobot's narrative over the past decade. The consistency both across the different sources and the years contributes to illustrating the extent to which the firm wants to highlight its involvement and its direct contribution to the American war effort through the provision of its military robots.

Such an approach might not seem surprising, considering that iRobot's warfare robots are widely used by American forces and that the US military provides substantial funding for the development of those products. In that sense, there are clear interests at stake for the company, which explain why iRobot explicitly sides with



US troops. What is particularly relevant for the line of argumentation of this investigation is that this narrative is what potential consumers of domestic robots are confronted with when consulting the various sources of information developed by the firm. By referring to US troops in such a way, iRobot endorses the missions in which the American military takes part. Thus, the language employed does not merely attempt to construct a positive image of the firm; it also contributes to the spread of a particular set of ideas, becoming a vehicle for the promotion of a certain worldview that acclaims the US military and a militaristic US foreign policy. It is in that sense that the narrative has a militarising character, as it promotes US military interventions to deal with international issues.

#### **6.1.2. The Firm's Narrative on its Practice of Hiring Ex-military Personnel and Military Contracts**

A further way in which iRobot attempts to enhance its public image in the US is by constructing a narrative whose underlying idea is that the firm's practice of hiring ex-military personnel for its G&I is beneficial for the nation as a whole, due to their expertise in the field and their ensuing ability to pursue strategic goals. A similar claim is made with regard to the military contracts received by the firm. The benefits for American soldiers and the US more generally are further emphasised by using the "us versus them" dichotomy and emotion-arousing language, whose aim is to sentimentalise the messages' recipients. Crucially, what this narrative does is present military aims as a clear priority, which feeds into a militaristic approach to foreign policy.

Over time, as iRobot's G&I division has expanded, to a significant extent thanks to the growing number of contracts received from the various branches of the US military, iRobot has hired a considerable amount of people who used to hold positions in the Department of Defence (DoD) and thus had links with the American military sphere. Some even used to hold rather important positions; ex under secretary of Defence for Acquisition, Technology and Logistics Jacques Gansler (iRobot, 2004d), or ex DARPA (Defence Advanced Research Projects Agency) programme manager Tom Wagner are only a few examples of personnel employed by the corporation that used to be closely related to the US military.

What is noteworthy about these ex DoD personnel being employed by iRobot is the way in which such practice is depicted, and how this contributes to the construction of the company's self-image and to the spread of a militarising narrative. In fact, iRobot's spokespeople portray the hiring of these figures as contributing to the achievement of the nation's strategic robotic initiatives. The argument advanced by the corporation in that regard is that the expertise gained by these figures in their previous military careers allows iRobot to pursue strategic goals in a more effective manner, as they are capable of providing crucial insights into the type of technology that is needed for military purposes. Much emphasis is laid on meeting what are supposedly soldiers' most vital needs, such as satisfying the growing demand for unmanned vehicles that contribute to keeping soldiers out of harm's way, given the growing danger posed by IEDs and the other threats within a context of urban warfare.

The line of argument revolving around the achievement of the nation's strategic objectives is particularly noteworthy as in fact the opposite might be true. The risk associated to such practices is one of conflict of interest (Griffin and Bronstein, 2010): people moving back and forth from key positions in the DoD to positions in military

contracting firms might push for the acquisition of certain types of equipment merely in order to make profits, while the nation's strategic objectives remain a secondary concern. This phenomenon is known as the revolving door and it has led attracted considerable attention in the United States, especially since all of the biggest military corporations like Lockheed Martin, Northrop Grumman and Boeing, have long been employing former military officers (Wayne, 2005). The attention received by this phenomenon, in turn, is hardly surprising, considering the enormous amount of public money used by the American government to pay their military contractors.

The analysis of the language used to construct the narrative put in place by iRobot with regard to hiring these figures closely linked to the military shows that the narrative often rests on the use of the "us versus them" dichotomy, i.e. the possessive adjective "our" is employed when referring to both US soldiers and the nation.

The statement on the appointment of former under secretary of Defence Gansler to iRobot's board of directors exemplifies how his previous career in the Department of Defence is portrayed in beneficial terms from the perspective of the nation's strategic objectives. In the press release announcing Gansler's appointment, Dyer declared:

Intelligent robots are already saving lives on the battlefield, but true success depends just as much on the human and organizational infrastructures that use and support the robots. Jacques' instinct and foresight will serve us well as iRobot continues matching its technological and practical expertise to the real needs of *our* nation's soldiers' (cited in iRobot 2004d – emphasis added to the original).

The use of the possessive adjective to refer to the nation's soldiers conveys once more the idea that iRobot clearly sides with American troops. Also, the quotation contains a clear reference to the fact that hiring Gansler is important in terms of the benefits that

derive for US soldiers, given his expertise both with regard to the technology and knowhow required. Gansler himself commented along those lines: ‘iRobot’s place at the forefront of military robotics will give me the opportunity to make a high-level contribution to our nation’s strategic robotic initiatives’ (cited in iRobot, 2004d). The terms used by Gansler reflect a similar approach to Dyer’s, as he argues that his appointment represents an occasion to make an important contribution to the nation’s strategic robotic initiatives and refers to the nation by using the possessive adjective “our”.

Dyer comments the appointments of former US Army Colonel Sulka and Marine Corps Colonel White to managerial positions within the G&I division is commented along similar lines:

[They] bring to iRobot detailed expertise in critical areas like defense acquisition [...]. Their experience will be invaluable as we expand our division to meet the military’s rising demand for tactical and reconnaissance robots such as the PackBots®, which is already saving soldiers’ lives in Iraq and Afghanistan. Their talents will allow iRobot to fully engage in defense transformation and help develop a new robotics industry in the United States and abroad (cited in iRobot, 2005c).

In this case, much emphasis is laid on the expertise of the former military personnel appointed, mainly in terms of the benefits that will derive from expanding the use of iRobot’s robots in the actual conflicts where American troops are fighting.

These examples show how iRobot emphasises its appointments of ex military personnel by insisting on the positive impact that such appointments will have for American forces, while it seems plausible that hiring ex-military personnel is likely to have first and foremost a positive effect for the firm, due to the connections that these people have. A similar strategy of highlighting the benefits for the nation as a whole is also followed by iRobot when describing its military contracts.

Together with the appointment of former military personnel, the contracts received from the various branches of the US Armed Forces are also framed in specific ways by iRobot, e.g. through the use of emotion-arousing terms that leave little room for questioning the amount of resources devoted to the development of military technologies.

Over the past decade, iRobot has received a considerable amount of contracts from the US Armed Forces, even though in recent years those numbers have been dwarfed by the Home robots sales, which are expected to account for about 90% of the firm's revenues for 2014 (iRobot, 2014). On the firm's website, the profitability of military funded research is cited as one of the reasons that led iRobot to get increasingly involved in that kind of business. Clearly, from a firm's perspective this is a perfectly coherent business strategy, since their primary goal is to make profits. Developing technologies with governmental funding, which then can also be used for other purposes, has proven to be a very lucrative strategy for iRobot. It has also placed the firm in a better position than its competitors in the field of consumer robotics.

Aside from the profitability of military funded research, iRobot also presents the contracts with the various branches of the American Armed Forces in a different way, as the emphasis is placed both on the practical value that its robots have for the US forces at war and on the urgency with which US soldiers actually *need* the technology funded through these contracts. By framing these contracts in these emotion-arousing terms, iRobot constructs a narrative that implies that the funding of military research should not be questioned, essentially justifying military spending. As iRobot designates military interests as a priority, the narrative is given a militarising character. Several examples retrieved from the press releases support this argument.

For instance, in the press release announcing a contract with NAVSEA [Naval Sea Systems Command] for the delivery of PackBot EOD [Explosive Ordnance Disposal] robots, iRobot included a statement that accentuates the practical value of the robots. Commander Scott Stuart, EOD Program Manager for NAVSEA states: ‘The rapid acquisition of small EOD robots comes in response to war fighters’ requirements for technologies that protect personnel and overcome the threat posed by unexploded ordnance, mines and IEDs’ (iRobot, 2005d). As the contract was increased in the following months he then commented along the same lines: ‘There is an urgent *need* for technology that can address IEDs, [...] we are increasing production to counter the threats that our EOD forces face’ (iRobot, 2005g– emphasis added to the original).

In several other press releases announcing further military contracts, the approach adopted when describing the value of military contracts remains the same, as the deployment of iRobot’s warfare robots is described as ‘urgent’ (iRobot, 2007j), and as iRobot declares to be committed to deliver the orders ‘quickly’ so they can be deployed to US forces overseas (iRobot, 2006f) or to ‘meet the growing demand for robots from soldiers in combat situations’ (ibid.).

Thus, the firm makes reference to its contracts with the military by highlighting the positive impact for the US soldiers involved in the war effort, as if they were iRobot’s main concern. Nevertheless, it is obvious that the relevance of these contracts is considerably linked to the fact that they have accounted for a substantial share of the firm’s revenue, at least until a few years ago, and also to the fact that iRobot can employ the technologies developed through military funding for its domestic range of robots, as it did when developing the Roomba, whose technology was initially developed for a military mine hunting program (Angle in Thomson Reuters, 2012).

Most importantly, however, the language employed by the firm advances ideas that justify the use of resources for military purposes. This occurs as iRobot develops its narrative by employing emotion-arousing terms that revolve around the idea of the military's needs, which implies that these are taken for granted and cannot be questioned. As a result, iRobot's narrative becomes militarising, as it fundamentally justifies military spending.

## **6.2. Defensive and “Security-enhancing”: How iRobot Constructs the Image of its Military Robotic Platforms (Omitting their Offensive Potential)**

This section illustrates how iRobot develops its self-image through a narrative on its military robots that heavily emphasises both their defensive and “security enhancing” character, particularly in relation to the dangers faced by American troops, while either underplaying or simply omitting their offensive potential. The section argues that this narrative is militarising, as it advances a militaristic approach to US foreign policy, by lowering the barriers to military intervention and by conflating defensive and offensive military means and strategy.

### **6.2.1. Warfare Robots’ “Security-enhancing” Function: How iRobot Keeps US Troops ‘Out of Harm’s Way’**

iRobot uses various linguistic devices and images to construct its military robots in security-enhancing terms with the overall aim to highlight how its military robots make the difference on the battlefield by keeping US soldiers away from danger.

One of the ways through which this occurs is through iRobot's use of the “security vs. danger” dichotomy and through the use of metaphors.

Evidence of the "security-enhancing robots" theme can be found throughout the data retrieved. The security vs. danger dichotomy becomes apparent through the frequent references to both dangerous situations US soldiers find themselves in and the role of iRobot' military robots in those circumstances. The image resulting from these recurrent associations is one in which iRobot's military robots are defensive and protect American soldiers, and have an obvious positive impact on the operations of the US forces overall. In iRobot's own words, PackBots and their other military robots ‘make a difference’ for soldiers on the battlefield.

Given the plethora of instances in which iRobot's military robots are described in those terms across the website and the press releases, some examples have been selected among those that appeared to be most revealing and interesting from the perspective of this investigation. In the case of the press releases, the sample is representative of the entire period covered by the available press releases (namely from 2004 onwards); this demonstrates the existence of a high level of consistency in iRobot's narrative over time.

In the sources selected for analysis, there are broadly two ways in which the warfare robots are depicted. The first is by making reference to their technical specifications and the concrete types of missions they carry out, such as IED disposal and situational awareness enhancement. The second, that is more relevant for this analysis, consists of spelling out the tasks carried out by the robots in relation to the goal of keeping soldiers safe; on several occasions it is made explicit that they keep American forces safe, both in Iraq and Afghanistan. The latter type of description is



the one that contributes to conferring a defensive and security-enhancing, and therefore positive, image of the warfare robots.

In the press releases there is a wealth of expressions and linguistic devices used to highlight that the PackBots and other military robots have a life-saving function, as they allow those on the battlefield to stay away from potentially harmful situations. Some quotations feature suggestive metaphors, which evoke the key role played by PackBots and other robots in keeping soldiers safe. For instance, one of the press releases on the Sentinel technology explains how it allows a single operator to control multiple semi-autonomous robots for surveillance and mapping tasks, ‘rendering dangerous areas safe without ever setting foot in a hostile environment’ (iRobot, 2006g). This quotation suggests that thanks to the deployment of robots endowed with Sentinel technology, operators do not need to enter dangerous areas and can carry out their tasks safely instead, which is further reinforced by the use of the evocative “setting foot” metaphor and by the use of the adjectives “dangerous” and “hostile”, as a means to highlight the risk entailed by some missions.

A further example of metaphor employed can be found in another press release that states that ‘PackBots [act] as eyes and ears for soldiers, [...] allowing [them] to stay out of harm’s way’ (iRobot, 2004b). The use of the ‘eyes and ears’ metaphor suggests that soldiers can rely on PackBots as if the robots deployment effectively gave soldiers a situational awareness comparable to the one they would achieve themselves, through their own eyes and ears, yet keeping them away from dangerous situations. This is a rather powerful image, as it implies the achievement of the best result, yet with the lowest possible risk for soldiers.

While in the preceding quotations reference to soldiers is made in general terms, others are more specific and mention US forces. The explicit reference to American forces is in all likelihood aimed at obtaining the sympathy from the American public and might also be instrumental in providing a rationale for justifying high levels of military spending on the part of the American government, especially given the extent to which American society has been casualty averse ever since the war in Vietnam.

One of the statements by co-founder Colin Angle contained in one of iRobot's press releases clearly shows how the firm's military robots are presented as "security-enhancing" for US forces carrying out their missions. In fact, he argues that 'iRobot extends the reach of US soldiers while keeping them from imminent danger. Every PackBot deployment helps to spare soldiers from life-threatening situations' (Angle cited in iRobot, 2004b). In this quotation it becomes clear how iRobot is associated to American forces and most importantly to the key role that their robots play in keeping them safe, as they face life-threatening situations on the battlefield. The concept of risk is expressed twice in the short statement through the use of "imminent danger" and "life-threatening" and on both occasions it is argued that thanks to the deployment of iRobot's military robots, the potential threat does not represent a danger any longer.

This is equally quite explicit in other quotations, such as 'PackBot EOD robots play a crucial role in helping to protect American [forces]' (iRobot, 2005f), where the concept of danger is not referred to explicitly, but nevertheless implied by the use of the term "protect" in relation to American forces; or

iRobot PackBot EOD is saving the lives of our soldiers and otherwise immeasurably helping our troops. We build our military robots with one primary goal in mind – helping soldiers complete their missions effectively, and most importantly, safely (Greiner cited in iRobot, 2005d).

The latter quotation also contains an implicit reference to the concept of danger, as the primary function of military robots is said to be to keep US soldiers safe, while they carry out their missions.

Further examples of iRobot's military robots being described as crucial for reducing casualties among American soldiers can be found throughout the press releases. For instance, co-founder Greiner declared: 'The Packbot MTRS [Man Transportable Robotic Systems] Robots are helping to reduce casualties as our soldiers battle insurgents' (cited in iRobot, 2006b). Similarly, other press releases state that 'iRobot and US military personnel have worked side-by-side [...] to ensure the success and survival of warfighters relying on PackBot robots' (iRobot, 2007h) or 'We are honored to be serving our troops by delivering these life-saving robots' (Dyer cited in iRobot, 2009d). In these three examples of quotations, it becomes apparent how iRobot aims at highlighting how their robots have an actual impact in reducing casualties among soldiers involved in the war effort, which has been a cause of concern for the American public.

On other occasions, there are explicit references to the actual conflicts American troops are involved in. In a press release Dyer declares that 'every day our EOD robots are working in Iraq to save the lives of American service men and women' (cited in iRobot, 2005i). Similarly, on the website, it is stated that

By the spring of 2002 our robots were on the ground in Afghanistan, where they explored Taliban hiding places and kept US soldiers out of harm's way. Our robots continue to keep our soldiers safe in Iraq and Afghanistan' (iRobot, 2014).

The reference to the actual conflicts in which American forces are involved is not particularly surprising, given that it is where iRobot's military robots are used to a great extent. Nevertheless, referring to their robots and the conflicts in those terms,

highlighting how iRobot enhances the security of US forces is likely to foster a positive reaction on the part of those supporting the war effort. This is particularly relevant considering the high levels of support that these war missions have enjoyed for a relatively long time.

References to the security-enhancing character of iRobot's robots and to the conflicts in which the US is involved can also be found in the use of a certain type of imagery on the part of the firm. On the firm's website, in the section called 'Robots for Defense and Security' (iRobot, 2013a), the first image appearing is one which features infantry troops on a mission with a SUGV [Small Unmanned Ground Vehicle], attempting to enter a building (Figure 5.1. - below). The composition of this image tells the public several things. First of all, there is a reference to the security-enhancing character of the warfare robot. In fact, the robot can be positioned in a riskier place than soldiers, who are hiding behind the wall, given the potential danger inside the building. Also, in the right corner of the picture there is a sign written in the Arabic alphabet, which recalls the involvement of American troops in Iraq (or Afghanistan, since the Persian alphabet is rather similar).



Figure 5.1. – iRobot's SUGV on a mission with American soldiers

The recourse to a similar imagery occurs throughout the website. For instance, in the Defense & Security section, there are videos presenting the various types of warfare robots, such as the 110 FirstLook® or the SUGV. These videos typically feature the robot carrying out missions alongside military or police forces. In the SUGV video, there are various visual representations of robots entering potentially dangerous areas, while soldiers are at a safe distance. Similarly to the image above, the video also features a sign written in the Arabic or Persian alphabet, which recalls the involvement of US troops in either Iraq or Afghanistan.

In sum, there are a great number of instances in which iRobot robots are referred to in terms of the “security-enhancing” functions that they perform for American soldiers. The emphasis laid on such function is crucial in conferring the firm a defensive character and in fostering a positive image of the firm in the eyes of the American public.

Most importantly, however, this narrative also has a militarising character. By emphasising how its military robots reduce the risks for (American) soldiers in combat scenarios, iRobot presents its audience with the myth of a clean war and is thereby likely to contribute to lowering the barriers to military interventions, even for a casualty-averse public.

### **6.2.2. Emotion-arousing Terms and Imagery**

A further way in which iRobot stresses and reinforces the “security-enhancing” character of its warfare robots is through the use of emotion-arousing language to refer to the American forces and to the way in which iRobot’s warfare robots support and

help the latter, and through the use of metaphors. Emotion-arousing language is typically used to frame messages in ways that will engender a sentimental response on the part of the recipients of these messages (Barthes, 2009). Throughout the sources analysed, there are many instances of iRobot using terms that invoke family bonds and the notion of human community. This section argues that these are used to construct the myth of a great American family, which includes all US citizens and contributes to concealing the differences between civilians and soldiers.

The concepts of family and human community are employed in various statements made by the firm's spokespeople. For instance, Dyer argues that the PackBot is 'keeping *our sons and daughters* safer as they fight to protect *those of us back home*' (cited in iRobot, 2008 – emphasis added to the original). The character of this statement is emotion-arousing for two reasons. First, Dyer explicitly uses a metaphor that evokes family bonds when referring to the US soldiers, which recalls the myth of the US population being a big family. Second, he mentions how US soldiers are involved in the war effort with the aim to protect "those of us back home", which is a clear reference to a domestic environment and recalls the myth of the family. Overall, the references to both family and home aim at establishing some emotional ties with the American audience, both by highlighting how the soldiers on the battlefield are ultimately American sons and daughters, but also because the threat of terrorism potentially affects every American citizen, namely the big family the myth refers to.

A further instance in which family bonds are evoked, and which has a strong emotional connotation can be found on the website's section with quotations from people who use iRobot's robots, both military and domestic. An US military official is quoted with regard to the importance of deploying PackBots instead of soldiers: 'When

a robot dies you don't have to write a letter to his mother' (iRobot, 2007l). In this quotation, robots are referred to metaphorically as if they were human, but at the same time as having no emotional ties like actual humans, which in turn has evident positive consequences should anything happen to them on the battlefield. The image that this quotation summons is particularly powerful, as it invites the audience to assess the extent to which the use of robots can be life-changing for those who are deployed on the battlefield.

Family bonds are also referred to in another press release, which contains a statement from an EOD specialist on the importance of iRobot warfare robots on the battlefield: 'All of our EOD *brothers* in Iraq and Afghanistan *need* this now... you guys at iRobot really know what you're doing' (iRobot, 2007b— emphasis added to the original). This statement has a very strong emotional character, as it refers to soldier comradeship between EOD specialists in both Iraq and Afghanistan by making reference to the notion of brotherhood and by using the notion of necessity with regard to the role of iRobot robots.

Family bonds and the notion of community are not the only ways in which iRobot attempts to sentimentalise the public. There are several compelling examples illustrating the way in which iRobot tries to appeal to the patriotic sentiment of the American audience by employing specific terms, whose use is clearly reinforced by the historical circumstances.

A recurring feature of the press releases is that iRobot spokespeople evoke pride and honor with regard to how people at iRobot feel about providing life-saving technology to US forces. For instance, Dyer argues that 'we are *proud* of the important role [the PackBot] plays in saving the lives of US service men and women' (iRobot,

2006f – emphasis added to the original). In his statement Dyer refers to pride, which is a feeling often associated to patriotic and nationalist sentiments. Pride is also mentioned in other press releases. For instance, current general manager of iRobot’s Defense and Security business unit stated: ‘iRobot is *proud* to provide robotic capabilities that help our warfighters accomplish their mission’. (iRobot, 2013k – emphasis added). Arguing that saving the lives of American soldiers or helping them as they carry out their missions makes people at iRobot proud, constitutes a powerful message, which in all likelihood will obtain the sympathy of those parts of the American people in favour of the wars fought by the US. Similarly, co-founder Greiner states that ‘we are *proud* to deliver our reliable field-proven robots to aid our warfighters in their dangerous missions’ (iRobot, 2007k– emphasis added to the original).

In iRobot’s press releases there are also several references to honor, another element that is typically associated to patriotic and nationalist sentiments. When commenting on an order from the US Army, Dyer stated that ‘Over the years, we have seen the life saving benefits of the iRobot PackBot. We are *honored* to continue providing these valuable tools to our troops to increase mission effectiveness and keep them safer on the battlefield’ (cited in iRobot, 2008g- emphasis added). On other occasions, he stated: ‘The iRobot PackBot is saving lives, and we are *honored* to be providing this technology to the military’ (Dyer cited in iRobot, 2010j – emphasis added); ‘We are *honored* to be serving our troops by delivering these life-saving robots to them in theater’ (cited in iRobot, 2009d- emphasis added to the original); and finally, with regard to a contract awarded to iRobot on the part of the US military ‘We are *honored* to *serve* our troops by delivering those robots for urgent deployment’ (iRobot, 2007- emphasis added to the original). In the last two statements, the term “honor” is further reinforced



by the idea of the firm “serving troops” as they provide their robots, as if iRobot was in a subordinate position to the military.

Dyer equally employs the concept of “serving” in a different way, as he refers to missions carried out by soldiers. As he comments on a NAVSEA contract, Dyer states: ‘I am pleased that NAVSEA is continuing to provide this technology to our troops helping to keep them safe as they *serve* to protect their *fellow soldiers* and *those of us back home*’ (iRobot, 2008d - emphasis added to the original). In this quotation, there are several noteworthy linguistic elements, apart from the regular use of the possessive adjective to refer to American troops. The first is that Dyer employs the term “serve” to refer to the missions that US soldiers are carrying out and most importantly, the notion of them “serving” is employed in conjunction to the idea that they are doing it for their fellow soldiers, thus evoking the importance of soldiers’ comradeship, but also for those back home, thus making a clear reference to the patriotic character of the soldiers’ missions. By mentioning these various bonds, the statement thus seeks to appeal to the audience, as the soldiers are ultimately “serving” for the entirety of the American nation.

Another example of quotation with a strong emotional connotation can be found in co-founder Colin Angle’s keynote speech at the Engineering Awesome event, in one of the videos on the iRobot iTube YouTube Channel, as he makes explicit reference to the feelings of EOD technicians:

Our soldiers were being forced to go and figure out how to identify the contents of thousands of caves and cliffs in Afghanistan. They were actually tying ropes to people in case they had to pull them out if they became injured. We heard about this and we had a DARPA program to make robots that could go into situations like this and send back information [...] ultimately the payoff [...] are postcards like this one [...]: “Thanks for all your support, you

have saved lives today” [...] Most EOD technicians that we have talked to get all teary and say: “Were it not for you, I would be dead.” (iRobot, 2010b)

This quotation offers a strongly emotional account of the kind of tasks faced by soldiers involved in the war effort, as it offers a powerful imagery, e.g. soldiers tied with ropes entering caves and descending cliffs. The statement also evokes other rather emotionally charged images, such as EOD technicians becoming “all teary”, whereas one would expect them to be “tough”, given the highly dangerous nature of their missions. Similarly, one of the videos available on the firm’s website shows a soldier that talks about the missions that he carries out saying that ‘it’s all real dark’ and that it causes ‘a sick feeling in your stomach’ (iRobot, 2013h). Both the quotation and the video are very evocative of the situations faced by US forces and thus attempt to appeal to the sentiment of the audience by emphasising the emotions of people whose life would be put at risk to a greater extent if there were no robots carrying out the dangerous missions instead of them.

Overall, the website, press releases and YouTube videos contain a great variety of expressions and terms evoking family bonds, and by extension the myth of a great American family that does not distinguish between soldiers and civilians, together with patriotic and nationalist sentiments, all of which are likely to appeal to the American audience, particularly given the specific circumstances in the wake of the terrorist attacks. All these expressions employed to refer to soldiers and to their missions presuppose the rightness of the wars fought on the part of the US, which echoes the dominant narrative on the necessity of the US to protect itself from terrorism and feeds into the myth of a just preemptive war fought by the US. This is a further instance of the ways in which the firm offers a *Weltanschauung* with a militarising character, since it endorses a militaristic US foreign policy.

### **6.2.3. iRobot and (Some of) its Partnerships**

Since iRobot was founded in 1990, it has had a variety of partnerships with different types of firms. For instance, it had partnerships with firms producing for consumer markets, such as toymaker Hasbro, and with other military corporations, such as aircraft producer Boeing (iRobot, 2007e) and weapon producer Lockheed Martin (iRobot, 2007f). These partnerships are all either mentioned in the press releases or on the website.

Importantly, the firm's partnership with Metal Storm, an Australian weapon producer is not mentioned anywhere in the data collected. Describing the FireStorm in non-offensive terms would certainly not be an easy task, given that one of its main defining features is its enhanced lethality. This strategy of omitting the partnership that lead to a robot with obvious offensive applications is in line with the other attempts made by the firm to depict its robots uniquely in defensive terms, in order to make them appear more consistent with the widespread idea that the US needed protection in the face of the terrorist menace.

Another partnership that might seem controversial, due to the offensive character of the product, is the one with TASER International, Inc. (iRobot, 2007g; Kanellos, 2007). The TASER is in fact an electroshock weapon that disrupts voluntary control of muscles and results in strong involuntary muscle contractions. While according to some studies published in the US the use of TASERs has led to a decreased number of deaths deriving from a minor use of lethal weapons (Roberts, 2001), the TASER technology has killed people on various occasions and is still surrounded by great controversy.

Despite TASER's potentially controversial character, the TASER-equipped PackBot is presented in the same terms as the PackBots in the sections above, namely in defensive and positive terms. In fact, in the press release announcing the partnership with TASER, it is argued that:

iRobot announced a strategic alliance with TASER International, Inc. to develop new robots that can remotely engage, incapacitate and control dangerous suspects with integrated TASER electronic control devices [and that add] a new ability to control dangerous suspects while keeping personnel, the suspect and bystanders out of harm's way.' (iRobot, 2007g)

Two aspects of this quotation are noteworthy. Firstly, the designation "dangerous suspects" is a contradiction in terms, since the term suspect involves no certainty about the dangerousness of the person in question. Secondly, it appears controversial to argue that the suspect can be kept "out of harm's way" as he is being tasered: even though the risks for the suspect are probably lower in comparison to being shot by a traditional lethal weapon, the TASER remains a potentially lethal weapon, which can lead to serious injuries. In that sense, the use of the expression "out of harm's way" does not seem appropriate. However, it serves the purpose of depicting TASER-equipped PackBots in defensive terms, as the potentially lethal TASER is described as reducing the risks for all the actors involved.

Overall, the way in which iRobot presents its partnerships demonstrates that the company attempts to construct its self-image uniquely in defensive terms. This is done by either omitting obvious offensive applications of its military robots, or by presenting even offensive means in defensive terms.

## **Conclusion**

This chapter has argued that, in addition to the conflation of the civilian and military spheres identified in chapter 5, there are two further core themes that emerge from the narrative that iRobot develops when constructing its self-image. These are the construction of its military robots in both defensive and security-enhancing terms, notably for American forces.

The empirical analysis of the relevant data has revealed that iRobot has used both textual and some visual means to develop its narrative along these lines. In particular, iRobot has made extensive use of linguistic devices that have contributed to framing its narrative in specific ways.

findings of the analysis of both the expressions and the imagery employed on the part of iRobot have supported the hypotheses underlying this empirical chapter; by employing some specific language, iRobot has developed a coherent narrative over the years, which is largely based on endorsing US foreign policy, particularly in Iraq and Afghanistan, and on providing and forcefully emphasising a “security-enhancing” and defensive account of its military robots. The use of certain images has also substantially reinforced the firm’s proposed narrative by providing a more immediate meaning (Barthes, 2009), for instance by showing images of soldiers being able to stay away from dangerous situations thanks to the use of the firm’s robots.

The first subsection has shown how the firm has built its narrative by highlighting its links with the American military in various ways. Firstly, it has focused on the construction of the “us” vs. “them” dichotomy, which has contributed to building an image of iRobot as siding with American troops, in the battle against “the bad guys”. This narrative has been constructed by making recourse to various linguistic

devices, such as the possessive adjective “our” when referring to US forces on one hand and terms with a negative connotation to refer to the opposing forces. By drawing on such a dichotomy and explicitly siding with US forces, iRobot has attempted to create a positive self-image in the eyes of the American public. Secondly, the first section has highlighted how both its practice of hiring former military personnel and the various military contracts are equally described in terms of the benefits deriving for US forces at war, coherently with the findings of the first subsection.

The second subsection has focused more specifically on the construction of the image of iRobot robots in purely defensive and “security-enhancing” terms. The first subsection has provided a variety of examples to demonstrate that the corporation depicts its robots by insisting on their life-saving character for US troops, both linguistically and through the use of some images. Also, throughout the data reference is made to the actual conflicts in which American troops are involved, which contributes to highlight the importance of the warfare robots to an even greater extent. The second subsection has then highlighted how emotion-arousing terms and expressions, evoking either family ties or nationalist and patriotic sentiments, can be found throughout the sources of data, further stressing the importance that iRobot robots have not only for American soldiers, but for the nation as a whole. Finally, the last subsection has shown how iRobot has deliberately highlighted some of its partnerships, while it has entirely omitted the partnership with the Australian weapon producer, which would be likely to confer it a controversial character, as it would call its defensive character into question.

The findings of this chapter, together with the findings from the previous chapter will be used in chapter 6, in order to demonstrate that the central themes emerging in iRobot’s narrative can be linked to ideas that have become established in

the American societal issues to the extent that they qualify as common sense, thus supporting the argument underlying this investigation.

## **Chapter 7**

### **Drawing the Links between iRobot's Branding and Marketing Strategies and American Common Sense**

#### **Introduction**

The previous two chapters have identified the three core themes constituting iRobot's narrative; these are the conflation of the military and civilian spheres, the security-enhancing character of the firm's warfare robots and the depiction of these robots uniquely in defensive terms. The chapters have also argued that these core themes confer a militarising character to the company's narrative, since they promote military presence in civilian settings and a more militaristic approach to US foreign policy.

Taking these three core themes as a starting point, this chapter argues that the main ideas conveyed by iRobot are consistent with American militarised common sense, i.e. a set of ideas that have become uncritically established among large sections of the American public. The coming into being of common sense has occurred as a result of these ideas being widely circulated in US society through various channels, largely following the translation of these ideas into policies by various US administrations. Based on these findings, the chapter makes three interrelated arguments: first, it argues that iRobot's branding and marketing strategy has been successful in the US market because, as the company taps into American militarised common sense to develop its narrative, the latter resonates with large sections of the US public. Second, as a result of the consistency between the narrative and American militarised common sense, the US



public does generally not consider the militarising narrative from a critical perspective. Finally, the chapter argues that when iRobot conveys its militarising narrative through its brand and marketing, in the media, in educational establishments and at public events, it contributes to the reproduction of American militarised common sense.

The line of reasoning adopted to develop the argument on the feedback loop between common sense/myths, iRobot, and militarisation, is consistent with both Gramsci's and Barthes's understandings of how ideas become ingrained in a society. For Gramsci, ideas become uncritically adopted by the masses, i.e. they become part of common sense, as they are widely circulated at the societal level through a variety of channels, including schools, the media, etc. (1965) For Barthes, myths play a key role in the coming into being of common sense (2009). As myths are spread at the societal level, they present ideologically framed messages that transform history into nature; as a result, the masses are unable to appraise their historical circumstances, which engenders their compliance with the regime they are part of.

The chapter proceeds as follows. In order to show the extent to which iRobot's narrative is consistent with American militarised common sense, I turn to American society looking for both manifestations of the ideas and myths at the core of iRobot's narrative and I attempt to develop an understanding of what the US public think on each of these core themes by using public opinion polls and academic sources. The notion of common sense is operationalised following this approach, since common sense cannot simply be measured. Finally, I trace the origins of the generally accepted ideas and identify the adoption of government policies as playing a key role in them becoming established as part of US militarised common sense.

## **7.1. The Conflation of the Military and Civilian Spheres**

The conflation of the civilian and military spheres is one of the features that most clearly emerges when analysing iRobot's branding and marketing strategy. The argument about the conflation of the two spheres being ingrained in American society to the extent that it has become part of common sense is corroborated by making reference to some of the literature on militarism and militarisation, which argues that American society has increasingly been pervaded by the military and that the influence of the military in society has an ideological dimension. The argument is further substantiated by showing that overall the US public does not seem to have a consistent stance with regard to different manifestations of the conflation of the two spheres in US society. This suggests that overall the US public do not question the conflation of the two spheres *per se*, but rather only individual instances, particularly when these have not been conveyed through a narrative aimed at establishing them at the societal level. This, in turn, supports the claim that the conflation of the military and civilian spheres is part of common sense.

### **7.1.1. Militarism and Militarisation**

Over the past three decades, a considerable amount of academic literature has been written on the military exercising influence on the civilian realm. While this vast body of literature presents great variation in terms of the aspects addressed, overall it can be seen to focus on how the military has pervaded the civilian sphere at two levels, the state and society – or rather political society and civil society to use the Gramscian categories of analysis<sup>5</sup>.

---

<sup>5</sup> The literature reviewed in this subsection tends to use the notions of state and society. However, these require some caution, as drawing sharp distinctions between the two notions has crucial implications. In

In the US, political society is generally identified as having been first subjected to the influence of the military, whereas it is argued that civil society has been pervaded at a later stage. This relationship was considered to have such relevance in characterising the American state following World War Two (WW2) that some scholars have employed the notion of a 'militarized state' (Giroux, 2008: 59) to refer to it.

The tendency of the US military to pervade political society was identified as early as the mid-1950s. In his groundbreaking critique of the distribution of power in the US published in 1956, C. Wright Mills already pointed out how the military started occupying a privileged position at the apex of the American power structure, alongside economic and political institutions (1958: 32). This trend, he argued, could be traced back to the Second World War, which marked the transition from an era of civilian authority to one of military prevalence (Mills, 2000).

Since Mills' writings, similar claims about the influence of the military upon American political society have been widely echoed, not only within academic circles. Most famously, in his farewell address in 1961, US president Dwight Eisenhower gave support to Mills' theory on the relationship between the military, the government and industrial capital. In fact, the president warned the American public of the dangers constituted by the 'military-industrial complex', the enormous industrial and military machinery of defence established in the United States since World War Two, which he said represented a threat for democratic processes (Eisenhower, 1961).

---

fact, such division reflects the one present in liberal theory, where the notion of the state is used to refer to the government, and the notion of society to refer to the private sector (Buttigieg, 1995: 5). Most importantly, in liberal theory society is best understood as opposed to the state; this distinction, in turn, serves to justify limited interventions in society on the part of the state. Gramsci rightly challenges such a distinction, by positing the existence of organic relationships between civil society and political society (ibid.: 4). For him, the state is constituted by both political society and civil society, where the former represents the sphere of coercion and the latter the sphere of hegemony, where consent is manufactured.

Alongside political society, the academic literature has also identified civil society as an area of the civilian realm increasingly subjected to the influence of the military, a phenomenon generally referred to as either militarism or militarisation, and which has important implications. As explained by Enloe,

to become militarized is to adopt militaristic values (e.g., a belief in hierarchy, obedience, and the use of force) and priorities as one's own, to see military solutions as particularly effective, to see the world as a dangerous place best approached with militaristic attitudes (2007: 4).

Even though the phenomenon is far from being exclusively American, the US has received particular attention by scholars of various backgrounds and orientations (Sherry, 1995; Boggs, 2002; 2005; Lutz, 2002; Bacevich, 2005; Giroux, 2008).

Boggs (2002; 2005) and Bacevich (2005) both argue that over the past decades we have witnessed the emergence of a *new* American militarism. For Boggs, militarism nowadays manifests itself at various levels, as it affects the US economy, political institutions and culture (2002). He places great emphasis upon the ideological aspect, as he states that a 'growing culture of militarism [...] seems to have established deep roots in the national psyche, nourishing a certain sacralization of violence, guns and war' (2002: 19), and which has become 'so deeply embedded in the national fabric that it has now become nearly invisible' (ibid: 20). Along similar lines, Bacevich (2005) draws attention to 'the misleading and dangerous conceptions of war, soldiers, and military institutions that have come to pervade the American consciousness and that have perverted present-day U.S. national security policy' (2005: ix).

Sherry (1995), Lutz (2002) and Giroux (2008) equally highlight the impact of the military upon civil society, even though they favor the term militarisation over militarism. Sherry prefers militarisation as, he argues, it highlights the dynamic character of the process, whereas the term militarism tends to suggest a static condition (1995: xi). He

uses the term to refer to the ‘process by which war and national security became consuming anxieties and provided the memories, models, and metaphors that shaped broad areas of national life’ (ibid.), a process whose origins he traces back to the late 1930s. For Lutz, militarisation comprises both a greater share of resources and labour devolved to military purposes (2002: 723), together with a more ideological aspect, which involves a ‘shift in general societal beliefs in ways necessary to legitimate the use of force, the organization of large standing armies and their leaders, and the higher taxes or tribute used to pay for them’ (ibid.). Giroux (2004) builds on Lutz’s definition and emphasises how contemporary militarisation differs from the former type of militarisation, which consisted merely of civil authority being subordinate to military authority; nowadays, militarisation aims at permeating the social order in its entirety, ‘legitimising its values as a central rather than peripheral aspect of American public life’ (ibid.: 211). Martial values are not to be found in merely one societal group; indeed, they have made their way into every American’s everyday life (ibid.). The stance adopted by the American public with regard to military interventions following 9/11 exemplifies the spread of militaristic attitudes across society.

While these studies vary in their emphasis, there are three key aspects that scholars seem to agree upon and that bear direct relevance for this thesis. First, there is considerable agreement among scholars that the influence of the military has a clear ideological dimension. This is particularly significant, since the thesis aims to show how iRobot has built its brand by drawing on some notions that have become so well established that they have attained ‘common sense status’. Second, this development needs to be investigated due to its consequentiality. In other words, the wide acceptance of martial values on the part of the American public is not without consequences; it can

generally be seen to have led both to a more positive attitude toward the military on the part of the American public and to an increasingly militarised approach to national security, particularly since 9/11. Third, the studies generally adopt a critical stance with regard to these developments, which is the perspective from which this thesis is written.

### **7.1.2. The Blurred Boundaries Between the Spheres**

In American society, there are many instances in which the boundaries between the civilian and the military realms have become blurred. Among the various manifestations of the conflation of the military and civilian spheres, some have generated outrage among large sections of the American public, whereas others seem to be so widely established that they have met only little resistance.

The attitude towards the militarisation of police forces, seen most notably in relation to the Ferguson protests, suggests that a significant part of the US public takes issue when military means and strategies pervade some areas of civil society, such as law enforcement (Ekins, 2013; Moore, 2014). In a YouGov/Huffington Post survey on the militarisation of the police, 51% of respondents stated that they are going too far, as opposed to 28% who think of it as necessary (Moore, 2014). Along similar lines, the longstanding lack of support among the American public for reintroducing the military draft (Jones, 2007) indicates a willingness to keep a separation between the US military and society. According to a Gallup poll in 2007 only 18% of Americans favoured a return to the draft, as opposed to 80% who disagreed (Jones, 2007). What these findings suggest is that a substantial part of the American public believe that becoming part of military forces should not simply occur in virtue of being a member of US society. In

other words, they oppose what some label the militarisation of citizenship (Elshtain, 1986: 104), which implies a connection between military service and citizenship.

The military pervading educational establishments and the outsourcing of military functions to civilians are two cases in which there has been only little (if any) resistance on the part of the American public. The existence of the counter-recruitment movement, composed of groups of concerned teachers, students and parents, who have raised concerns over the presence of the military in schools and think that the military's goals of instilling obedience conflict with the main purpose of education, e.g. developing critical thinking skills, suggests that there has been some form of resistance. However, the practice persists despite these efforts, thus shedding doubts on the effective level of opposition on the part of the American public. Similarly, the practice of outsourcing military functions to civilians is widely established, as demonstrated by the increased reliance on private military companies in the US. Yet, it has not generated particularly strong reactions in civil society.

What these findings suggest is the presence of discrepancies and tensions at the conceptual level: the US public does not question the conflation of the civilian and military spheres in itself. In line with Gramsci's and Barthes's writings, a plausible explanation for large sections of the US public accepting the conflation of the two spheres in some domains is that the ideas related to these practices have been widely circulated in US society, following the adoption of specific policies by various US administrations.

Education establishments are a key area of civil society that has long been affected by the pervasiveness of the military. iRobot has launched its own education initiative aimed at fostering interest in STEM (Science, Technology, Engineering and

Math) curricula through the use of robots in classrooms, effectively bringing military robots into schools. iRobot's involvement in this type of initiative however represents only one instance of the multiple ways in which the military sphere enters education establishments. In that sense, iRobot's initiative is consistent with historical patterns of turning education establishments into sites of military presence. Such a tendency goes back at least to the First World War, when the JROTC (Junior Reserve Officers' Training Corps), a federal programme sponsored by the US Armed Forces, was introduced as part of the National Defence Act of 1916.

The phenomenon of education establishments becoming sites of military presence is generally referred to as 'school militarisation' (Furumoto, 2005). This consists of the 'practices and policies in schools that orient youth towards military enlistment and service [...] and the production and control of knowledge, values, and ideas within schools that define how young people think about the world and their role in it' (ibid.: 200). This definition highlights two central aspects of this phenomenon, both of which are evocative of the notion of common sense.

First, school militarisation consists of schools being targeted by the US military for its recruitment efforts, a practice endorsed and encouraged by policies adopted by various American governments. Thus, we can see how US administrations play a key role in encouraging the blurring of the boundaries between the military and civilian spheres in a particularly significant site. Second, the definition focuses on the ideological dimension that emerges from the presence of the military in schools. The parallel with Gramsci's notion of common sense is evident; in her definition of school militarisation, Furumoto highlights how such presence aims at instilling a certain set of values and ideas that affect students' *Weltanschauung*.



American high schools have long been the target of military expansion into the civilian sphere. One of the first policies that brought education and the military together was the JROTC programme<sup>6</sup>, which was introduced in 1916 to increase US readiness in the face of the First World War. The programme, taught by retired military personnel, covers three to four years of high school and involves a variety of typically soldierly activities, such as military drill and wearing the uniform at school once a week (Lutz and Bartlett, 1995: 4). Since its introduction, the amount of resources devoted to JROTC has been fluctuating, however in the early 1990s, the programme underwent a remarkable expansion. As it nearly doubled in size, following a request of the Department of Defence (DoD) and a change of legislation enacted by Congress in order to increase the number of units permitted by law (ibid.), it attracted greater attention from a number of scholars.

Allegedly, the JROTC programme was initially largely motivated by the need to deal with ‘moral decay among youth, provide citizenship training for immigrants, and inculcate much needed discipline and respect for authority’ (Bartlett and Lutz, 1998: 120). These were the main arguments advanced by the proponents of the programme. Defence officials deny that the JROTC is aimed at encouraging teenagers to enlist in the military (Enloe, 2000: 14).

However, Lutz and Bartlett, two scholars that have written extensively about the JROTC (Lutz and Bartlett, 1995; Bartlett and Lutz, 1998), have established that the actual goals are more insidious and inspired by other practical and ideological considerations and needs, such as recruitment and producing common sense in lower social strata. Their arguments in that regard seem supported by the fact that schools with

---

<sup>6</sup> For a detailed account of the JROTC programme and its history refer to Lutz, C. and Bartlett, L. (1995) ‘Making Soldiers in the Public Schools’.

a JROTC curriculum are mainly to be found in poorer school districts and in schools with a high share of minority students, who have less appealing job prospects once they finish high school and are more likely to be lured by a position in the military (Lutz and Bartlett, 1995: 6; Enloe, 2000: 13; Brown in Saltman and Gabbard, 2011: 133).

The most visible practical aim of the JROTC programme is recruitment. Currently this goal is greatly determined by the need to recruit for the all-volunteer force (AVF) that replaced the conscription army in place between WW2 and the Vietnam War (Tannock, 2005: 165). The military has in fact openly admitted that it was meeting increasing difficulties in filling the ranks, particularly in the 1990s (Orvis and Asch, 2001). Even though JROTC denies being a recruiting tool, this specific goal is made explicit in an Army regulation, which states that JROTC ‘should create favourable attitudes and impressions toward the Services and toward careers in the Armed Forces’ (cited in Bartlett and Lutz, 1998: 127). The strong links between JROTC and recruitment also seem to be confirmed by the numbers of JROTC cadets joining the ranks of the various branches of the Services, which equaled 45% of students in the programme in 1998 (ibid.; Enloe, 2000: 13).

In addition to being a recruitment tool the JROTC programme has also fulfilled another key task, which is of a more ideological nature. In fact, since its implementation, the purpose of the JROTC curriculum has also been to instil specific values and ideas, in order to deal with contemporary societal issues and ease social tension. In the 1990s, these ideas revolved around a ‘militarized view of democracy and citizenship’ (Bartlett and Lutz, 1998: 120), a view spurred by the inculcation of martial values such as discipline, uniformity and compliance. This was also made explicit by the military’s argument that ‘militarized training will instil discipline in “marginal” students [and] teach patriotism’ (Enloe, 2000: 14). According to Lutz and Bartlett’s analysis, the content of

the JROTC texts clearly reflects this ideological aim (ibid.: 129); it also contains various passages where the civilian and military spheres are conflated (ibid.: 130). This is exemplified by the fact that ‘the text calls for a conflict-free democracy that respects constituted authority in precisely the way the military does’, thus ‘promot[ing] authoritarianism and the militarization of the civilian sphere’ (ibid.). It is perhaps worth mentioning in that regard that the JROTC curriculum is generally not reviewed by any educational body (ibid.: 127).

Overall, Bartlett and Lutz conclude that the military should not use public schools for its own benefit, since the military’s ‘goals are not those accepted as the primary goals of public education in a democracy’ (Lutz and Bartlett, 1995: 3), such as developing critical thinking skills and the promotion of democratic values. This echoes Gramsci’s position; according to him schools should aim to develop the students’ ability to think, rule and control those who rule (Gramsci, 2010: 40).

In his article on schools and militarism in Post-9/11 America, Tannock (2005) raises a key point with regard to Lutz and Bartlett’s position on the JROTC programme. He argues that their analysis exemplifies a well-established tendency to understand school-military relations in a rather narrow way. In fact, he states that comparing JROTC textbooks and “civilian” ones, leads to a problematic implication, namely that ‘schools that refuse JROTC programs and use “civilian” textbooks can be portrayed as being successfully “demilitarized”’ (Tannock, 2005: 173). However, as Tannock rightly points out, this is far from being the case. This is particularly true since the introduction of No Child Left Behind (NCLB) Act, another measure adopted by the government that has further tightened the links between the military and educational establishments in the US in more recent years. In fact, in contrast to the JROTC programme, which features only

in specific schools, NCLB allows for an even greater expansion across the country's high schools.

The NCLB Act is a federal legislation enacted by Congress in 2001, whose stated goal is 'to close the achievement gap with accountability, flexibility, and choice, so that no child is left behind' (US Department of Education, 2001). While the stated intent has an inclusionary tone, when taking a closer look at the implementation of the legislation it becomes apparent that this is far from being the case. NCLB bears close resemblance with JROTC, as it also targets low-income institutions with a high share of minority students. This is largely due to the fact that poorer schools are more dependent on federal funds and are therefore more vulnerable to the threat of budget cuts, but also because the parents of these minority students are less likely to challenge NCLB, due to lack of knowledge of how the school system works (Furumoto, 2005: 202). However, by referring to the notion that no child should be left behind, the US administration taps into the "equality of opportunity" myth, making the legislation look more appealing, as it conceals that it tends to target specific social groups.

From the perspective of this investigation, the most interesting aspects of this federal legislation are contained in Section 9528, titled 'Armed Forces Recruiter Access to Students and Student Recruiting Information'<sup>7</sup>. The section does in fact grant the military access to high school students in two ways.

---

<sup>7</sup> NCLB §9528 states the following:

(1) Access to student recruiting information - Notwithstanding section 444(a)(5)(B) of the General Education Provisions Act and except as provided in paragraph (2), each local educational agency receiving assistance under this Act shall provide, on a request made by military recruiters or an institution of higher education, access to secondary school students names, addresses, and telephone listings.

(2) Consent - A secondary school student or the parent of the student may request that the student's name, address, and telephone listing described in paragraph (1) not be released without prior written parental consent, and the local educational agency or private school shall notify parents of the option to make a request and shall comply with any request.

(3) Same access to students - Each local educational agency receiving assistance under this Act shall provide military recruiters the same access to secondary school students as is provided generally to post secondary educational institutions or to prospective employers of those students.

First, educational establishments receiving funds under the Act have to grant the US military identical access to secondary school students as it does to post secondary educational institutions or prospective employers. Thus, the military has access to a wide range of high schools, in particular those that rely to a greater extent on federal funding. Also, this provision indicates a clear attempt to conflate the military and civilian spheres, as the military positions itself at the same level as other civilian institutions and entities.

Second, the legislation further facilitates military recruitment efforts, as it compels high schools benefitting from funding under the Act to disclose students' names, addresses and telephone listings to recruiters, as they do with institutions of higher education, unless students "opt out" by having their parents signing a specific form. Again, this is evocative of the practice of blurring the lines between the military and civilian spheres. The military is in fact equaled to civilian institutions, as the provision applies both to military recruiters and higher education establishments, treating them in the same manner.

Thus, the NCLB has opened the doors of high schools even wider to military presence. In Furumoto's words, 'NCLB §9528 promotes overt school militarization by increasing military recruiters' access to school campuses and students for recruitment purposes' (2005: 200). From the perspective of the US military, this has proven particularly convenient in the years of the wars in Iraq and Afghanistan, given the pressing need to recruit more soldiers. As Anderson points out, 'schools have come under more pressure from recruiters, as the Pentagon's need for troops has increased since the invasion and occupation of Iraq and, more recently, the escalating war in Afghanistan' (2009: 267-268).

In addition to the recruitment purposes underpinning the NCLB federal legislation, Furumoto (2005) also focuses on the ideological effects of the widespread

military presence in high schools and NCLB more specifically. In that regard, she reaches a conclusion that widely echoes Gramsci's thoughts in relation to the process of manufacturing consent being enacted in schools, as one of the channels through which hegemony is maintained (1965: 482). She states that the actual function of such legislation is to 'maintain and perpetuate dominant values and ideology' (2005: 202) in order to underpin the status quo. In fact, the implementation of NCLB is conducive to students having less capacity to critically engage and participate in society (ibid.: 200), as they are encouraged to develop obedience to authority, discipline and acceptance of dominant values and beliefs (ibid.: 206). Thus, according to Furumoto, NCLB is a 'prime example of how dominant groups (capitalists) within the United States maintain and legitimize their power, values and control within U.S. society' (ibid.: 201).

It should also be noted that schools are not the only educational establishments targeted by the US military. Academic institutions also have links to the military. In some cases this relationship was established for research purposes, and determined by the need to deal with financial difficulties, which led US higher education to increasingly serve the interests of the Pentagon (Giroux, 2008). In other cases, universities have entered into specific agreements with the Army and established SROTC (Senior Reserve Office Training Corps) programmes. A well-known example is Harvard university; the ROTC, first established in 1916, was suspended during the Vietnam War and restored only in recent years (Harvard University, 2014).

Overall, it is clear that there are historical patterns of militarisation of educational establishments in the US. JROTC and NCLB have served similar purposes, such as facilitating recruitment, particularly at times when recruitment targets were harder to

reach, and the inculcation of specific values and ideas functional to the ruling social groups. Considering the extent to which the military has established its presence in schools, it seems that the US public has generally embraced the narrative on the benefits deriving from the military presence in educational establishments that has been advanced by the American governments.

The practice of military services being increasingly outsourced to private military companies (PMCs) represents a further case in which the boundaries between the civilian and military spheres are challenged. In broad terms, PMCs are ‘businesses that provide governments with professional services intricately linked to warfare; they represent, in other words, the corporate evolution of the age-old profession of mercenaries’ (Singer, 2005: n.a.).

In general, in recent decades, the outsourcing of public services has become a well-established practice in Western governments, a practice referred to as New Public Management (NPM) (Hood, 1995) and largely motivated by the mantra that having firms competing for the provision of those services should allow cutting costs and achieving greater efficiency. The military is no exception; since the 1990s, NPM inspired reforms have also started characterising the management of defense and security functions (Ortiz, 2010), in line with the myth on the greater efficiency of private providers of services.

This phenomenon is particularly relevant in the US, defined as a ‘leader[...] in NPM-style reforms’ (Ibid.: 35) with regard to military functions, together with the UK. The relevance of this phenomenon is also testified by the fact that between 1994 and 2002, the Department of Defence and U.S.-based PMFs have stipulated over 3000

contracts, for an estimated value of more than \$300 billion (Singer, 2003: 15). As O'Hanlon points out, the number of people working for defence contractors employed in America's defence efforts is comparable to those directly employed by DoD (O'Hanlon, 2009: 6). In other words, 'the world's most dominant military has become increasingly reliant on PMFs' (Singer, 2005: n.a.).

While the results of this practice are debatable enough when it comes to services such as education, the matter becomes even more problematic when it concerns the outsourcing of military functions. This is particularly true for those that argue that 'security is the paramount responsibility of a national government' (Gargan, 1999: 222), but it also becomes obvious if one considers practical matters. For instance, relying on PMFs raises issues of control, since those carrying out missions fall outside the military chain of command and system of justice (Singer, 2005) and are therefore not bound to carry out tasks as a country's military would have to. Despite the implications deriving from outsourcing military services, however, the 1990s have been characterised by a trend toward privatisation that has affected the US military in unprecedented ways.

Initially, the outsourcing of martial services was tightly linked to the downsizing of the military that occurred in the wake of the end of the Cold War. The downsizing policies were adopted due to the fact that justifying the enormous military machine put in place in the preceding decades and its costs had become increasingly hard once the Soviet threat had disappeared and the US had remained the only superpower. Given the new circumstances, 'there was widespread recognition of the need for a new paradigm [...] to guide force structure decisions [...]. A reduced international threat was assumed to translate to reduced military expenditures' (Gargan, 1999: 226). This was the



conclusion reached by the three major reviews undertaken in the first three years following the end of the Cold War (*ibid.*: 228).

Ironically enough, even though on one hand the downsizing policies led to a partial dismantlement of the American military machine and thus to a reduction of costs, on the other hand, the American government started outsourcing a broad array of services that would normally be carried out by the military (Singer, 2003: 15), devoting a considerable amount of funds to the newly emerging PMFs, according to estimates<sup>8</sup>.

Crucially, these contractors perform a great variety of tasks. As Singer points out, '[t]he areas being outsourced are not just minor ones such as military food services [...], but include a variety of areas critical to the U.S. military's core missions. [i.e.] security, military advice, training, logistics support, policing, technological expertise, and intelligence' (*ibid.*). Even the maintenance and administration for strategic weapons are all privatised. Thus, civilians have started performing a wide range of functions that were typically carried out uniquely by the military.

There are important implications deriving from the greater use of contractors to carry out military functions. A significant example of the ways in which the boundaries between the civilian and the military spheres are blurred is given by the unclear status held by PMF employees. As Singer puts it, '[C]ontractors are not quite civilians, given that they often carry and use weapons, interrogate prisoners, load bombs, and fulfil other critical military roles. Yet they are not quite soldiers, either' (2005: n.a.). This has obvious implications from a legal perspective, since legal codes sharply distinguish between soldiers and civilians. In fact, when someone is captured or commits crimes during a

---

<sup>8</sup> As Singer (2005) points out, exact figures are not available.

conflict, the status of individuals is crucial in determining how they should be treated. Clearly, the emergence of PMFs has posed a serious challenge to the way in which such distinction is formulated.

A further issue raised is that the military simply does no longer play a unique role, since civilians carry out a considerable amount of military activities. This in turn, Singer argues, has repercussions on the military forces themselves, as ‘the military’s professional identity and monopoly on certain activities is being encroached on by the regular civilian marketplace’ (ibid.). At the same time, this is also the image confronting the American public, i.e. one where the military’s uniqueness is challenged, as key tasks are increasingly carried out by civilians.

The fact that the US has relied to such an extent on military contractors over the past two decades clearly shows that the US administrations have played an active role in blurring the divide between the military and civilian spheres

Overall, the findings of this chapter suggest that the conflation of the military and civilian sphere is part of American militarised common sense and that the US government has contributed to the coming into being of the latter through the adoption of specific policies. In turn, the conflation of the two spheres being part of American militarised common sense provides a plausible explanation for the success of iRobot's branding and marketing strategy, since it contributes to the company's narrative resonating with large sections of the US public.

## **7.2. “Security-enhancing” and Defensive: iRobot’s Attempts to Enhance the Image of its Military Robots**

The other two key themes emerging from the analysis of iRobot’s branding and marketing strategy are the security-enhancing and the defensive character of the company's military products. The section argues that these two themes resonate with large sections of the US public because some closely related ideas have become part of American militarised common sense; these are casualty aversion and an understanding of offensive (preventive) military means in defensive terms. The argument that the American public tends to be casualty averse, although at times other concerns supplant this aversion, is substantiated by making reference to both studies on the phenomenon and opinion polls on the support for military interventions that involve US casualties. The argument on the conflation of defensive and offensive military means is supported by considering the levels of support for the war in Iraq, a war that was largely presented as preventive (and thus defensive) on the part of the Bush administration, despite the lack of compelling evidence showing that Iraq posed an actual threat to the US.

### **7.2.1. Casualty Aversion**

What comes to mind rather spontaneously with regard to the emphasis placed on the security-enhancing character of iRobot's military robots is casualty aversion, a notion typically employed to refer to the unwillingness on the part of the public of a given social order to tolerate casualties in military operations abroad. Indeed, it is widely assumed that since (and as a consequence of) the Vietnam War, this sentiment is widely shared by Americans. Currently, this belief is perhaps also reinforced by the increased reliance of

the US on drones to carry out military missions (McCracken, 2013), which suggests a rather casualty-averse stance, at least on the part of the US administrations and only with regard to American forces. This is particularly true under Obama, as the growing numbers of drone attacks testify to ‘a clear policy shift towards greater reliance on targeted killing’ (ibid.: 97).

The theme of casualty aversion re-emerges at the forefront of public discussion in the US whenever the possibility of deploying troops abroad is taken into consideration. Whether and to what extent the American public is *actually* casualty-averse are much-debated issues to which there is no univocal answer. Rather, the answers abound in the literature, ranging from those that dismiss the notion of casualty aversion as a myth (Lacquement, 2004; Feaver and Gelpi, 2004; Cassidy, 2006; Gelpi, Feaver and Reifler, 2009) to those who believe that the US public is fundamentally casualty averse.

The stance that casualty aversion is nothing but a myth lacking any foundation is aptly summarised by Lacquement:

There is no intrinsic, uncritical casualty aversion among the American public that limits the use of U.S. armed forces. There is a wide range of policy objectives on behalf of which the public is prepared to accept American casualties as a cost of success. Squeamishness about even a few casualties for all but the most important national causes is a myth. (2004: 39)

Nevertheless, this literature denying the existence of casualty aversion in the US agrees that it is so widely assumed that the US public is casualty-averse that they refer to the notion as a ‘conventional wisdom’ (Lacquement, 2004; Feaver and Gelpi, 2004; Cassidy, 2006; Gelpi, Feaver and Reifler, 2009). Most importantly, these authors argue that this ‘conventional wisdom’ has wide implications, as US administrations assume that casualty

aversion exists (Feaver and Gelpi, 2004: 148; Cassidy, 2006: 29), and thus act in accordance with this belief when devising policies.

On the other side of the spectrum, there are those who argue that casualty aversion is deeply ingrained in the American public, even though there are different perspectives as to where this casualty aversion originated. According to some, casualty aversion is entrenched in American culture and has very deep roots in the country's historical tradition (Mandel, 2004: 29; Record, 2002). Most advocates of the casualty aversion thesis, however, tend to trace the casualty-averse attitude back to the legacy of the Vietnam War. This specific argument rests on the dramatic decrease in support for the war effort over time, which in turn is mostly attributed to the severe losses faced by the American forces. This perspective is exemplified by Kissinger's remark in 1999 that 'America [...] is not willing to take any casualties. Vietnam produced a whole new attitude' (quoted in Buley, 2008: 72).

When considering the empirical evidence provided by the literature in support of these two broad contrasting views, it becomes apparent that there are inconsistencies in US public opinion over time that stand in the way of having such a clear-cut perspective on casualty aversion.

On one hand, there is a wealth of research carried out that gives credit to the argument that casualty aversion does indeed exist and is fundamentally ingrained in the US. In his extensive study on the historical role of casualties in relation to domestic support for US military operations carried out for the RAND corporation, Larson (1996: xv) asserts that historically potential and actual casualties have been considered to be a

relevant factor by majorities of the public, when it comes to supporting military operations. A similar argument is made by Bobrow and Boyer (2004: 240-241).

On the other hand, there are clear instances of public opinion being in favour of military intervention, despite the potential risks entailed for US soldiers. A significant example in that sense is represented by the overwhelming support for the military mission in Afghanistan on the part of the American public. According to a Gallup opinion poll, the war in Afghanistan enjoyed widespread support among US citizens, even if it were to involve the use of US ground troops and a significant number of US casualties: 80% of respondents would favour military action with ground forces and 65% would be in favour even if it involved the deaths of 1000 American soldiers (Jones, 2001). As stated by Lacquement, 'Polls conducted in the months after 11 September 2001 demonstrated willingness to accept risks of significant ground force operations, even high casualties' (2004: 46), an attitude that seems to conflict with a casualty-averse stance.

Given the apparent inability to reconcile the abovementioned theories on casualty aversion with the existing empirical data and analyses, it seems necessary to turn to more nuanced views on the issue of casualty aversion in the US.

In his review of popular theories of casualty aversion, Smith reaches the conclusion that in Western democracies casualty aversion 'varies from conflict to conflict, nation to nation, and era to era' (2005: 507). Due to the fact that public opinion is dynamic and not static (ibid: 499), and also that the data on casualty aversion presented above is inconsistent, it appears that framing the debate in the rigid terms described above, i.e. casualty aversion as a myth or as deeply ingrained in the American public, does not provide a very helpful approach to the phenomenon.

Smith's points about public opinion being dynamic and casualty aversion being contingent on the historical context evoke Gramsci's theoretical elaboration of the notion of common sense and his focus on historicity (Gramsci, 2010: 326). One of the key aspects of the concept is that common sense is a product of history and therefore changes over time, in accordance with the historical circumstances. Thus, defining casualty aversion as common sense, as outlined by Gramsci, allows to provide an account of the phenomenon able to encapsulate the fluctuations in public opinion that have occurred over time. In fact, it seems plausible that following the Vietnam War casualty aversion became rooted in the US, and has loomed in people's minds ever since, but that in the face of new threats, such as the terrorist attacks in the homeland, casualty aversion has been relegated to a secondary concern. This does not imply that casualty aversion has vanished, but that within the fragmentary and incoherent ensemble of values and ideas making up common sense, one idea has prevailed over another at a specific historical time.

Considering the historical patterns of casualty aversion and public opinion without taking into consideration the measures adopted by American governments to reduce the risk of incurring casualties provides a partial picture of the phenomenon of casualty aversion and the implications linked to it: if wars can be waged and at the same time casualties can be avoided, opposition to military interventions is expected to be lower.

While the debate over American casualty aversion persists, the policies adopted by various US administrations over the past two decades leave little doubt as to where they stand. Between the use of air strikes and the increased reliance on drones

comfortably maneuvered from some US based office, it is rather clear that there is an unwillingness to expose US soldiers to great risks. This is perhaps also demonstrated by the fact that even in Iraq and Afghanistan the number of casualties is relatively low, i.e. below 5300 deaths, in comparison to the number of casualties suffered in Vietnam, i.e. approximately 58000.

Kosovo provides an excellent example of how military interventions started being conceptualised as something that could be carried out without a single drop of friendly blood being spilled. In fact, the NATO intervention was entirely carried out through high altitude bombing and was concluded without suffering a single friendly casualty (Dobos, 2012: 147). Thus, Kosovo represents an excellent example of ‘antiseptic air campaign [that] exacerbated [the] notion of using force without bleeding’ (Cassidy, 2006: 30). According to Feaver and Gelpi, the way in which concern over casualties led decision making with regard to the military intervention in Kosovo was the key feature of that military operation (2004: 101).

While air strikes involve some degree of risks for the pilots, the more recent technological developments further testify to the growing reluctance to risk American soldiers’ lives on the part of the US administrations, namely the increased reliance on unmanned systems to carry out military missions. The best-known types, and also the ones that have been surrounded by the greatest level of controversy due to a number of implications linked to their use, are unmanned aerial vehicles (UAVs), generally referred to as drones and defined by Singer as ‘the ultimate means to avoid sacrifice’ (2009: 312). Despite the controversy surrounding them, unmanned systems have become increasingly popular in Western countries, particularly in the United States, and have been widely



used in recent conflicts, such as Afghanistan and Iraq. As noted by McCrisken, Obama's announcements on how targets are chosen and how attacks are carried out, have 'contributed[d] to the normalisation of targeted killing [as they] emphasise its utility and attempt to dissipate concern about its legitimacy and effectiveness' (2013: 102).

The increased occurrence of military interventions carried out without US soldiers actually setting foot in the hostile environment does not only show a rather coherent pattern of US policies inspired by the desire to avoid casualties; it is also likely to have crucial repercussions in terms of the perceptions of the American public. In fact, as Mandel (2004) and Dobos (2012) rightly point out, the casualty aversion of the US public is reinforced by the realisation that thanks to the development of more advanced technologies, such as unmanned vehicles, 'war need not have casualties' (Dobos, 2012: 54). This line of reasoning is in accord with some research findings that show a clear 'preference among the U.S. public for less risky military actions (e.g. air strikes) as opposed to more risky actions (e.g. the commitment of troops)' (Eichenberg 2005). Clearly, the use of drones contributes to making the military operation even safer in comparison to air strikes. Unmanned vehicles then provide the ultimate solution to the military intervention/casualty aversion impasse.

In iRobot's case, the findings point to a different but related development, namely the possibility to reduce casualties while having forces on the ground. As a result, it is plausible that it will lead to greater readiness to send troops on the ground.

Overall, this subsection adds to the core line of argumentation of the thesis by further substantiating the claim that the central themes of iRobot's narrative resonate with large sections of the US public, due to the fact that iRobot taps into an American

militarised common sense when developing its narrative. The findings of this subsection suggest that casualty aversion has become part of American common sense, although at specific historical times it can be superseded by other more pressing concerns, such as perceived threats to the security of the Homeland. The findings also suggest that various US administrations have played a role in casualty aversion becoming ingrained, through policies aimed at the development of unmanned vehicles and the adoption of military tactics that reduce the risks for US soldiers.

#### **7.2.2. Challenging the Defensive/Offensive Demarcation: The Legacy of the Bush Doctrine and American Common Sense**

Another main feature of iRobot's branding and marketing practice is that of depicting the military robots merely in defensive terms, which clearly represents one of the most explicitly controversial practices of the firm. There are two distinct ways in which this practice takes place. On one hand, in MetalStorm's case for instance, iRobot deliberately conceals some information from the public, whereby it constructs and conveys a partial image of the firm and its military robots. On the other hand, iRobot describes explicitly offensive applications, such as the TASER, uniquely in defensive terms.

While obscuring the firm's partnership with MetalStorm is meaningful, the practice of defining the TASER-equipped robots in defensive terms is even more interesting. In fact, the TASER is widely known for its harming potential; yet, iRobot emphasises its defensive character as if the matter were entirely uncontroversial. A plausible explanation for such behaviour is the firm's desire to enhance its image.

The practice of emphasising the defensive character while obscuring the offensive potential of an entity can be found within other contexts related to the military domain. For instance, it reflects a practice that can be found among PMCs. These companies perform a great variety of military tasks. The diversity is such that effectively the only unifying feature of these firms is that all the services they offer fall within the military domain (Singer, 2003: 88). Even though there is a general agreement that breaking down the industry into groups presents difficulties, some have attempted to categorise them according to certain criteria. The most typical distinction made is between “active” and “passive” firms. One of the criteria to classify them is based on whether engaging in combat operations is among the offered services or not. Firms that provide training, advice or that defend a territory are typically considered “passive”. However, such categorisation is problematic, as even “passive” firms defending a territory might engage in combat operations (Singer, 2003: 89). The key point is that there is the tendency to equate “passive” with “good” firms and “active” with “bad” firms, which in turn leads firms to being ‘quick to claim themselves as passive’ (Singer, 2003: 90), in order to appear less controversial and ‘have a better claim to legitimacy’ (ibid.).

The practice adopted by PMCs suggests that the notion of defence is generally thought to generate a more positive response on the part of the public. If one considers iRobot’s practice, it can easily be seen how it echoes the practices adopted by PMCs attempting to enhance their image, particularly in light of the negative light shone on these firms on various occasions.

While the tendency on the part of military entities to appear defensive, and thus less contentious, provides a plausible explanation for iRobot’s behaviour, the firm’s

practice is also evocative of another development that has recently occurred in the US. In fact, in the aftermath of the 9/11 terrorist attacks, as a consequence of the formulation of the related US foreign policies, the demarcation line between defence and offence has become rather blurry. Evidence for this claim can be found in the National Security Strategy (NSS) released by the White House In 2002, which was a direct response to the attacks. Throughout the document, it becomes clear that the separation between the notions of defence and offence is challenged. In its introductory section, the NSS states:

Defending our Nation against its enemies is the first and fundamental commitment of the Federal Government. [...] as a matter of common sense and self-defense, America will act against such emerging threats before they are fully formed. We cannot defend America and our friends by hoping for the best. [...] the only path to peace and security is the path of action (The White House, 2002).

The idea conveyed by this declaration is that America's foremost priority is to defend the Homeland and that in order to do so the US is willing to engage in war as a preventive measure. Such an understanding clearly poses a great challenge to the conventional understanding of self-defense, a right granted by the UN Charter only in response to an armed attack (UN, 1945). Instead, in the face of menacing terrorists, war is presented as a necessity as defensive and is thus fully justified, despite the controversial character of the notion of preventive war.

Crucially, given the overwhelming support that the US strategy has received on the part of the American public, at least in its initial stages, it can be concluded that Bush's understanding of war as a defensive measure, as outlined in the NSS (2002), and the ensuing uncritical conflation of the notions of defence and offence, has generally taken hold among very large sections of the US public.

The fact that an offensive military action is understood in defensive terms, although it is likely to conflict with the understanding that most people are likely to have of what constitutes a defensive and an offensive act, suggests the presence of discrepancies at the conceptual level. These inconsistencies, in turn, lend support to the argument that understanding offensive military means in defensive terms has become part of American militarised common sense.

## **Conclusion**

Building on the findings of the two previous chapters, this chapter has addressed the core question underpinning the investigation by arguing that the reason for the success of iRobot's branding and marketing strategy lies in the fact that the firm has developed its narrative by drawing on themes and ideas that are part of American militarised common sense. These are the conflation of the military and civilian spheres, casualty aversion and an understanding of offensive military means merely in defensive terms. The extent to which these ideas are established among large sections of the American public has been demonstrated by using academic sources and by drawing on the findings on public opinion polls. As a result of these ideas being ingrained in US society, the chapter has contended that the narrative advanced by the company, which revolves around conflating the military and civilian spheres, and emphasising the security-enhancing and defensive character of the firm's military robots, resonates with large sections of the American public. Most importantly, this also stands in the way of the US public appraising the militarising aspects identified in the firm's narrative and contributes to the reproduction of militarisation.

## **Conclusion**

This thesis set out to determine what makes iRobot's use of military elements in its branding and marketing strategy successful in the American market for everyday domestic products. The argument developed in that regard is that the success of this strategy is caused by the fact that iRobot has developed its narrative on the military character of the firm by tapping into ideas constituting American militarised common sense. Following Gramsci, these are a set of ideas on the role and place of the military that are widely and uncritically held within contemporary American society. This argument has been supported as follows.

First, the investigation has carried out a semiological analysis of the language and images used on the part of the company when developing its self-image. This analysis has led to the identification of three core themes constituting iRobot's narrative.

The first core theme is the conflation of the military and civilian spheres, which has been conveyed through the use of the same brand for both the domestic and the military divisions of the company and through the use of both linguistic framing devices, such as metaphors and emotion-arousing terms, and visual framing devices that have drawn and established strong connections between its products across the various sources investigated. The divide between the two spheres has also been challenged by the fact that iRobot has gained access to educational establishments.

The second and third core themes are the emphasis placed on the security-enhancing and the defensive character of the firm's military robots, respectively. These core themes have been identified in iRobot's use of some imagery aimed at showing that the company's robots keep (American) soldiers safe and in the firm's use of

various linguistic devices. Through the use of dichotomies, metaphors and emotion-arousing terms, iRobot presents its products in security-enhancing and defensive terms, usually by making explicit references to the security of American troops.

These core themes have then been found to be consistent with closely related ideas that are part of American common sense. This consistency has been demonstrated by the fact that large sections of the American public do not question the conflation of the military and civilian spheres in various instances in which this occurs, such as in the case of military presence in educational establishments; by the fact that overall the US public tends to be casualty averse, unless there are more pressing concerns such as perceived threats to the Homeland; and by the fact that overall the US public has accepted a conflation of offensive and defensive military means and strategies, as testified by the wide support given by the American public to the war in Iraq, although it challenges how people would normally understand the two notions.

The thesis has then traced the origins of these ideas constituting militarised common sense and has shown that these ideas have most likely become established as a result of governmental actions. For example, as an instance of the blurred boundaries between the civilian and military spheres, military presence in educational establishments has long been established and strengthened by the adoption of various policies in the US. Similarly, while casualty aversion has been a feature of American society at least since the Vietnam War, it is plausible that it has become even more established following the adoption of military tactics that involve lower risks for soldiers and the emphasis placed on developing unmanned vehicles that keep soldiers out of harm's way. The conflation of offensive and defensive military means and strategies, whose development is traced back to the Bush Doctrine of preventive war,

seems to have become broadly accepted, as testified by the overwhelming support for the war in Iraq.

The thesis has also provided a reflection on the implications of iRobot's narrative. In that regard, it has argued that through its narrative, iRobot contributes to the reproduction of militarised American common sense. This has been argued with regard to the content of the messages conveyed, but also due to the fact that iRobot, as a military firm that has access to everyday consumer markets, has the ability to reach a large audience with its militarising narrative.

Each of the three core themes conveyed by iRobot, it is argued, has a militarising character. As the firm draws links between its two divisions of products, it challenges the separation between the military and civilian spheres and promotes the conflation of the two realms. As iRobot emphasises the security-enhancing character of its military robots, it reproduces the myth of clean wars (at least for American forces) and promotes a militaristic approach to US foreign policy, which can be justified by the fact that its robots contribute to keep US forces out of danger. Finally, the company further endorses a militaristic approach, as it blurs the distinction between defensive and offensive military means and strategies. Due to the fact that these ideas are consistent with American militarised common sense, the scope for a critical appraisal of the militarising character of the firm's narrative remains limited for large sections of the American public.

Crucially, as iRobot spreads these ideas at the societal level, thanks to the fact that it has access to a large audience, it contributes to further reinforcing these ideas and the militarisation of US society. This argument is consistent with both Gramsci's and Barthes's understandings of how common sense and myths, respectively, become ingrained in societies, as ideas are circulated in society through a variety of channels.



In turn, a militarised society poses serious challenges to the workings of democracy, since military ideas and values, such as obedience, the belief in hierarchy and discipline, substantially contrast with the ones that should underpin a system that purports to be democratic, such as participation and critical thinking. This points to the pressing need to rethink how civil military relations should be configured in the US.

Overall, this investigation has invited us to reflect on the changing role and place of military firms within contemporary American capitalism, as they can access the civilian sphere by producing everyday consumer products. As the literature on the commercial military and security industry highlights, in general PMSCs have come to play an increasingly important role in society, as they advance militarising narratives through their marketing efforts. This thesis concurs with this body of literature and argues that the fact that military companies have the ability to reach a wide audience and spread their militarising narrative as they enter everyday consumer markets is also a major cause of concern. The fact that a firm like iRobot is granted access to educational establishments, in particular, is seen as particularly worrying, due to the key role that educational establishments have in the coming into being of knowledge, values and ideas.

To conclude, this thesis has shown how an everyday object like a vacuum cleaner can be linked to a variety of politically relevant aspects. Most importantly, it has pointed at the dangers posed by the increasing spread of militaristic values and beliefs in American civil society. Given the consequences entailed both for US democracy and the international order more broadly, it is important that these developments are considered from a critical perspective. In that regard, education should play a key role,

as its overall aim should be to enable people to think critically about the world they live in. This is in line with Gramsci, who argued that education should aim at forming children as people 'capable of thinking, studying, and ruling – or controlling those who rule' (2010: 40). However, the developments in American schools lead to the emergence of a paradox: how are educational establishments in which the military is present supposed to encourage students to think critically if at the same time some of the ideas circulated in these establishments revolve around obedience, hierarchy and the use of force?

## **Bibliography**

- Aaker, D. A. and Keller, K. L. (1990) 'Consumer Evaluations of Brand Extensions', *The Journal of Marketing*, 54 (1): 27-41
- Aaker, D. (1991) *Managing Brand Equity*, New York: The Free Press
- Aaker, D. (1996) *Building Strong Brands*, New York: The Free Press
- Adamson, W. (1980) 'Gramsci's Interpretation of Fascism', *Journal of the History of Ideas*, 41(4): 615-633
- Althusser, L. (1971) 'Ideology and Ideological State Apparatuses', in *Lenin and Philosophy, and Other Essays*, London: New Left Books
- Anderson, G. L. (2009) 'The Politics of Another Side: Truth-in-Military-Recruiting Advocacy in an Urban School District', *Educational Policy*, 23 (1): 267-291
- Arvidsson, A. (2005) 'Brands: A Critical Perspective', *Journal of Consumer Culture*, 5: 235-258
- Arvidsson, A. (2006) 'Brand Value', *Journal of Brand Management*, 13 (3): 188-192
- Arvidsson, A. (2007) 'The Logic of the Brand', *Quaderni del Dipartimento di Sociologia e Ricerca*, Quaderno 36, Trento: Università degli Studi di Trento
- Asimov, I. (2004) *I, Robot*, New York: Bantam Books
- Bacevich, A. (2005) *The New American Militarism – How Americans Are Seduced by War*, New York: Oxford University Press
- Barkin, S. (2010) *Realist Constructivism: Rethinking International Relations Theory*, Cambridge: Cambridge University Press
- Barthes, R. (1993) *Image-Music-Text*, London: Fontana Press
- Barthes, R. (1993) 'Suis-je Marxiste?' in Eric Marty, ed. Roland Barthes, *Oeuvres complètes, Tome I, 1942-1965*, Paris: Éditions du Seuil
- Barthes, R. (2009) *Mythologies*, London: Vintage
- Barthes, R. (2010) *Writing Degree Zero & Elements of Semiology*, London: Vintage

- Bartlett, L. and Lutz, C. (1998) 'Disciplining Social Difference: Some Cultural Politics of Military Training in Public High Schools', *The Urban Review*, 30 (2): 119- 135
- Beach, D. and Pedersen, R. B. (n.a.) 'Case Selection Techniques in Process-Tracing and the Implications of 'Taking the Study of Causal Mechanisms Seriously'', [online], available at: < <http://goo.gl/IqfpLG> > [accessed 2 February 2016]
- Beach, D. and Pedersen, R. B. (2011) 'What is Process-Tracing Actually Tracing? The Three Variants of Process Tracing Methods and their Uses and Limitations, APSA Annual Meeting Paper, available at <<http://ssrn.com/abstract=1902082>> [accessed January 20, 2016]
- Beach, D. and Pedersen, R. B. (2013) '*Process-tracing Methods: Foundations and Guidelines*', United States: The University of Michigan Press
- Bennett, A. and Elman, C. (2006) 'Qualitative Research: Recent Developments in Case Study Methods, '*Annual Review of Political Science*, 9: 455-476
- Bennett, A. and Checkel, J. T., eds., (2015) '*Process Tracing: From Metaphor to Analytic Tool*', Cambridge: Cambridge University Press
- Bennett, A. and George, A. L. (1997) 'Process Tracing in Case Study Research', MacArthur Foundation Workshop on Case Study Methods, October 17-19, [online] available at: < <http://users.polisci.wisc.edu/kritzer/teaching/ps816/ProcessTracing.htm> > [accessed January 20, 2015]
- Berndtsson, J. (2012) 'Security Professionals for Hire: Exploring the Many Faces of Private Security Expertise', *Millennium*, 40(2): 303-320
- Bischak, G. (1999) 'Demobilization from the Cold War 1990-1998: Lessons of U.S. Conversion Policy', *Peace Economics, Peace Science and Public Policy*, 5(2): 1-42
- Boggs, C. (2002) 'Overview: Globalization and the New Militarism', *New Political Science*, 24 (1): 9-20
- Boggs, C. (2005) '*Imperial Delusions: American Militarism and Endless War*', Lanham: Rowman and Littlefield Publishers
- Boush, D. M. and Loken, B. (1991) 'A Process-Tracing Study of Brand Extension Evaluation', *Journal of Marketing Research*, 28 (1): 16-28

- Brasher, B. (2000) *'Implosion: Downsizing the U.S. Military, 1987-2015'*, Westport: Greenwood Press
- Brookfield, S. (2005) *'The Power of Critical Theory for Adult Learning and Teaching'*, Maidenhead: Open University Press
- Brown, E. (2011) 'Freedom for Some, Discipline for Others', in Saltman, K. and Gabbard, D., eds., *Education as Enforcement: The Militarization and Corporatization of Schools*, Abingdon: Routledge
- Brzoska, M. (1999) 'Military Conversion: The Balance Sheet', *Journal of Peace Research*, 36 (2): 131-140
- Bryman, A. (2016) *'Social Research Methods'*, Oxford: Oxford University Press
- Buley, B. (2008) *'The New American Way of War: Military Culture and the Political Utility of War'*, Abingdon: Routledge
- Burawoy, M. (2012) 'The Roots of Domination: Beyond Bourdieu and Gramsci', *Sociology*, 46 (2): 187-206
- Buttigieg, J. A. (1995) 'Gramsci on Civil Society', *Boundary 2*, 22 (3): 1-32
- Cabral, L. (2000) 'Stretching Firm and Brand Reputation', *The RAND Journal of Economics*, 31 (4) 658-673
- Campbell, D. (1975) 'Degrees of Freedom and the Case Study', *Comparative Political Studies*, 8: 178-193
- Campbell, D. and Shapiro, M. J. (2007) 'Introduction to Special Issue on Securitization, Militarization and Visual Culture in the Worlds of Post-9/11', *Security Dialogue*, 38(2): 131-137
- Cassidy, R. (2006) *'Counterinsurgency and the Global War on Terror: Military Culture and Irregular War'*, Westport: Praeger
- Chandler, D. (2002) *'Semiotics: The Basics'*, Abingdon: Routledge
- Checkel, J. T. (2008) 'Process Tracing', in Klotz, A. and Prakash, D., eds., *Qualitative Methods in International Relations: A Pluralist Guide*, Basingstoke: Palgrave Macmillan, Ch.8
- Chisholm, A. (2014a) 'The Silenced and Indispensable: Gurkhas in Private Military Security Companies', *International Feminist Journal of Politics*, 16(1): 26-47

- Chisholm, A. (2014b) 'Marketing the Gurkha Security Package: Colonial Histories and Neoliberal Economies of Private Security', *Security Dialogue*, 45(4): 349-372
- Clarke, S. (1993) *'Marx's Theory of Crisis'*, Basingstoke: Palgrave Macmillan
- Clift, B. (2014) *'Comparative Political Economy: States, Markets and Global Capitalism'*, Basingstoke: Palgrave Macmillan
- Cohen, E. (1997) 'Civil-Military Relations', *Orbis*, 41(2): 177-186
- Collier, D. (2011) 'Understanding Process Tracing', *Political Science and Politics*, 44(4): 823-830
- Comor, E. A. (2008) *'Consumption and the Globalization Project – International Hegemony and the Annihilation of Time'*, Basingstoke: Palgrave Macmillan
- Coste, C. (1998) 'Roland Barthes moraliste', Villeneuve-d'Ascq: Presses Universitaires du Septentrion
- Cova, B. and Dalli, D. (2009) 'Working Consumers: The Next Step in Marketing Theory?', *Marketing Theory*, 9 (3): 315-339
- Cox, R. (1981) 'Social Forces, States and World Orders: Beyond International Relations Theory', *Millennium: Journal of International Studies*, 10 (2): 126 – 155
- Cox, R. (1995) *'Debt, Time and Capitalism'*, *Studies in Political Economy*, 48: 165-170
- Daldal, A. (2014) 'Power and Ideology in Michel Foucault and Antonio Gramsci: A Comparative Analysis', *Review of History and Political Science*, 2(2): 149-167
- Der Derian, J. (2000) 'Virtuous War/Virtual Theory', *International Affairs*, 76(4): 771-788
- Der Derian, J. (2001) *'Virtuous War: Mapping the Military-Industrial-Media-Entertainment Network'*, Oxford: Westview Press
- Dobos, N. (2012) *'Insurrection and Intervention: The two Faces of Sovereignty'*, Cambridge: Cambridge University Press
- Eichenberg, R. C. (2005) 'Victory Has Many Friends: U.S. Public Opinion and the Use of Military Force, 1981-2005', *International Security*, 30 (1): 140-177
- Eisenhardt, K. M. (1989) 'Building Theories from Case Study Research', *The Academy of Management Review*, 14(4): 532-550

- Eisenhardt, K. M. and Graeber, M. E. (2006) 'Theory Building from Cases: Opportunities and Challenges', *Academy of Management Journal*, 50(1): 25-32
- Ekins, E. (2013) '58 Percent Say Police Departments Using Drones, Military Weapons Goes Too Far, 60 Percent of Tea Partiers Agree', Reason-Rupe Poll, December 17, [online] available at: < <https://reason.com/poll/2013/12/17/56-percent-say-police-departments-usin2> > [accessed 4 January 2016]
- Elshtain, J. E. (1986) 'Citizenship and Armed Civic Virtue: Some Critical Questions on the Commitment to Public Life', *Soundings*, 69(1/2): 99-110
- Enloe, C. (2000) *Maneuvers: the International Politics of Militarizing Women's Lives*, London: University of California Press
- Enloe, C. (2007) *'Globalization and Militarism: Feminists Make the Link'*, Plymouth: Rowman & Littlefield Publishers
- Etkins, A. D., Watkins, K. E. and Marsick, V. J. (2005) 'Case Study Research Methods' in Swanson, R. A. and Elwood, F. H., eds. *'Research in Organizations: Foundations and Methods of Inquiry'*, San Francisco: Berrett-Koehler Publishers
- Fairclough, N. (1996) *'Language and Power'*, Harlow: Addison Wesley Longman
- Falleti, T. G. and Mahoney, J. (2015) 'The Comparative Sequential Method', in Mahoney, J. and Thelen, K., eds., *'Advances in Comparative-Historical Analysis'*, Cambridge: Cambridge University Press
- Feaver, P. and Gelpi, C. (2004) *'Choosing your Battles: American Civil-Military Relations and the Use of Force'*, Princeton: Princeton University Press
- Femia, J. (1975) 'Hegemony and consciousness in the thought of Antonio Gramsci', *Political Studies*, 23 (2): 29-48
- Flyvbjerg, B. (2006) 'Five Misunderstandings about Case-Study Research', *Qualitative Inquiry*, 12 (2): 219- 245
- Friedman, M. (1985) 'Consumer Boycotts in the United States, 1970-1980: Contemporary Events in Historical Perspective', *The Journal of Consumer Affairs*, 19(1): 96-117

- Frye, E. L. (2004-2005) 'Private Military Firms in the New World Order: How Redefining "Mercenary" Can Tame the "Dogs of War"', *Fordham Law Review*, 73 (6): 2607 – 2664
- Furumoto, R. (2005) 'No Poor Child Left Unrecruited: How NCLB Codifies and Perpetuates Urban School Militarism', *Equity and Excellence in Education*, 38(3): 200-210
- Gage, D. (1995) 'UVG History 101: A Brief History of Unmanned Ground Vehicle (UGV) Development Efforts', *Unmanned Systems Magazine* 13 (3): 1-10
- Gargan, J. J. (1999) 'To Defend a Nation: An Overview of Downsizing and the U.S. Military', *M@n@gement*, 2 (3): 221-232
- Gelpi, C., Feaver, P. and Reifler, J. (2009) '*Paying the Human Costs of War: American Public Opinion and Casualties in Military Conflicts*', Oxford: Princeton University Press
- George, A.L. and Bennett, A. (2004) '*Case Studies and Theory Development in the Social Sciences*', London: MIT Press
- Germain, R. and Kenny, M. (1998) 'Engaging Gramsci: International Relations Theory and the new Gramscians', *Review of International Studies*, 24: 3-21
- Gerring, J. (2004) 'What is a case study and what is it good for?', *American Political Science Review*, 98 (2): 341-354
- Gerring, J. (2006) 'Single-Outcome Studies: A Methodological Primer', *International Sociology*, 21(5): 707-734
- Gerring, J. (2007) '*Case Study Research: Principles and Practices*', Cambridge: Cambridge University Press
- Gillis, J. R. (1989) '*The Militarization of the Western World*', ed., London: Rutgers University Press
- Giroux, H. A. (2001) 'Mis/Education and Zero Tolerance: Disposable Youth and the Politics of Domestic Militarization', *Boundary 2*, 28(3): 61-94
- Giroux, H. A. (2004) 'War on Terror: The Militarising of Public Space and Culture in the United States', *Third Text*, 18 (4): 211-221
- Giroux, H. A. (2008) 'The Militarization of US Higher Education after 9/11', *Theory, Culture and Society* 25 (5): 56-82



- Goldman, R. (1992) '*Reading Ads Socially*', London: Routledge
- Goldman, R. and Papson, S. (2006) '*Capital's Brandscapes*', *Journal of Consumer Culture*, 6: 327- 353
- Graber, D. and Smith, J. (2005) 'Political Communication Faces the 21st Century', *Journal of Communication*, 55(3): 479-507
- Gramsci, A. (1975) '*Quaderni dal Carcere*', vol. 4., ed. Valentino Gerratana, Torino: Einaudi
- Gramsci, A. (1996) '*Gli Intellettuali e l'Organizzazione della Cultura*', 3<sup>rd</sup> ed., Roma: Editori Uniti
- Gramsci, A. (2010) '*Selections From the Prison Notebooks*', Hoare, Q. and Nowell Smith, N., eds., New York: International Publishers
- Hall, K. (2006) 'Shooters to the Left of Us, Shooters to the Right: First Person Arcade Shooter Video Games, the Violence Debate, and the Legacy of Militarism', *Reconstruction*, 6(1), available at: <http://reconstruction.eserver.org/Issues/061/hall.shtml> [accessed January 20, 2016]
- Hall, S. (1986) 'Gramsci's relevance for the Study of Race and Ethnicity', *Journal of Communication Inquiry*, 10(5): 5 -27
- Hall, S., ed. (1997) '*Representation: Cultural Representations and Signifying Practices*', London: SAGE Publications
- Hansen, L. (2015) 'How Images make World Politics: International Icons and the Case of Abu Ghraib', *Review of International Studies*, 41(2): 263-288
- Harding, S. and Kershner, S. (2011) "'Just say No": Organizing Against Militarism in Public Schools', *Journal of Sociology and Social Welfare*, 37 (2): 79-109
- Hardt, M. and Negri, A. (2000) '*Empire*', London: Harvard University Press
- Harvey, D. (2008) 'The Right to the City', *New Left Review*, 53: 23-40
- Hay, C. (2002) '*Political Analysis: A Critical Introduction*', Basingstoke: Palgrave Macmillan
- Hebdige, D. (1979) '*Subculture: The Meaning of Style*', London: Routledge

- Hellinger, D. (2004) 'Humanitarian Action, NGOs, and the Privatization of the Military, *Refugee Survey Quarterly*, 23(4): 192-220
- Higate, P. (2012) 'Cowboys and Professionals': The Politics of Identity Work in the Private and Military Security Company, *Millennium*, 40(2): 321-341
- Holt, D. B. (2002) 'Why Do Brands Cause Trouble? A Dialectical Theory of Consumer Culture and Branding', *The Journal of Consumer Research*, 29(1): 70-90
- Holt, D. B. (2004) 'How Brands Become Icons – The Principles of Cultural Branding', Boston: Harvard Business School Press
- Holt, D. B. (2006a) 'Toward a Sociology of Branding', *Journal of Consumer Culture*, 6(3): 299-302
- Holt, D. B. (2006b) 'Jack Daniel's America: Iconic Brands as Ideological Parasites and Proselytizers', *Journal of Consumer Culture*, 6(3): 355-377
- Holub, R. (1992) 'Antonio Gramsci: Beyond Marxism and Postmodernism', London: Routledge
- Hood, C. (1995) 'The "New Public Management" in the 1980s: Variations on a Theme', *Accounting, Organizations and Society*, 20 (2-3): 93-109
- Hozic, A. (1999) 'Uncle Sam Goes to Siliwood: Of Landscapes, Spielberg and Hegemony, *Review of International Political Economy*, 6(3): 289-312
- Huelfer, E. A. (2003) 'The "Casualty Issue" in American Military Practice: the Impact of World War I', Westport: Praeger Publishers
- Huntington, S. (1957) 'The Soldier and the State: The Theory and Politics of Civil-Military Relations', Cambridge: Harvard University Press
- Huntington, S. (1995) 'Reforming Civil-Military Relations', *Journal of Democracy*, 6(4): 9-17
- Ives, P. (2005) 'Language, Agency and Hegemony: A Gramscian Response to Post-Marxism, Critical Review of International Social and Political Philosophy', *Critical Review of International Social and Political Philosophy*, 8 (4): 455-468
- Ives, P. (2004a) 'Language and Hegemony in Gramsci', London: Pluto Press
- Ives, P. (2004b) 'Gramsci's Politics of Language: Engaging the Bakhtin Circle and the Frankfurt School', London: University of Toronto Press

- Janowitz, M. (1960) *'The Professional Soldier: A Social and Political Portrait'*, Glencoe: Free Press
- Janowitz, M. (1976) 'Military Institutions and Citizenship in Western Societies', *Armed Forces and Society*, 2(2): 185-204
- Janowitz, M. (1983) *'The Reconstruction of Patriotism: Education for Civic Consciousness'*, Chicago: University of Chicago Press
- Jarman, N. (1992) 'Troubled Images', *Critique of Anthropology*, 12 (2) 145-165
- Jervis, R. (2003) 'Understanding the Bush Doctrine', *Political Science Quarterly*, 118 (3): 365 – 388
- Joachim, J. and Schneiker, A. (2012a) Of 'True Professionals' and 'Ethical Hero Warriors': A Gender-discourse Analysis of Private Military and Security Companies', *Security Dialogue*, 43(6): 495-512
- Joachim, J. and Schneiker, A. (2012b) 'New Humanitarians? Frame Appropriation through Private Military and Security Companies', *Millennium*, 40(2): 365-388
- Joachim, J. and Schneiker, A. (2014) 'All for One and One in All: Private Military Security Companies as Soldiers, Business Managers and Humanitarians', *Cambridge Review of International Affairs*, 27(2): 246-267
- Jones, J. (2001) 'Support Remains High Even if Military Action Is Prolonged, Involves Casualties', Gallup Poll, September 21-22, [online] available at: <<http://www.gallup.com/poll/4960/support-remains-high-even-military-action-prolonged-involves-casualties.aspx>> [accessed 4 January 2016]
- Jones, J. (2007) 'Vast Majority of Americans Opposed to Reinstating Military Draft', Gallup Poll, August 13-16, [online] available at: <<http://www.gallup.com/poll/28642/vast-majority-americans-opposed-reinstituting-military-draft.aspx>> [accessed 4 January 2016]
- Jubas, K. (2010) 'Reading Antonio Gramsci as a Methodologist', *International Journal of Qualitative Methods*, 9(2): 224-239
- Keller, K. L. and Aaker, D. A. (1992) 'The Effects of Sequential Introduction of Brand Extensions', *Journal of Marketing Research*, 29: 35-50

- Keller, K. L. (2001) '*Building Customer-based Brand Equity*', *Marketing Management*, 10 (2): 14-19
- Keller, K. L. (2008) '*Strategic Brand Management- Building, Measuring and Managing Brand Equity*', 3<sup>rd</sup> ed., Upper Saddle River, NJ: Prentice Hall
- Klein, N. (2005 [1999]) 'No Logo', London: Harper Perennial
- Klein, G., Smith, C. and John, A. (2004) 'Why We Boycott: Consumer Motivations for Boycott Participation', *Journal of Marketing*, 68: 92-109
- Klotz, A. (2009) 'Case selection' in Klotz, A. and Prakash, D., eds., '*Qualitative Methods*', Palgrave Macmillan
- Laclau, E. and Mouffe, C. (1987) '*Hegemony and Socialist Strategy: Towards a Radical Democratic Politics*', London: Verso
- Lacquement, R. A. (2004) 'The Casualty-Aversion Myth', *Naval War College Review*, 57 (1): 39 – 57
- Lakoff, G. and Johnson, M. (1980) '*Metaphors We Live By*', Chicago: The University of Chicago Press
- Landy, M. (1996) '*Cinematic Uses of the Past*', London: University of Minnesota Press
- Larson, E. V. (1996) '*Casualties and Consensus: The Historical Role of Casualties in Domestic Support for U.S. Military Operations*', Santa Monica: RAND
- Leander, A. (2005a) 'The Power to Construct International Security: On the Significance of Private Military Companies', *Millennium- Journal of International Studies*, 33 (3): 803- 826
- Leander, A. (2005b) 'The Market for Force and Public Security: The Destabilizing Consequences of Private Military Companies', *Journal of Peace Research*, 42 (5): 605- 622
- Leander, A. (2010) 'Commercial Security Practices', in Burgess, P., ed., '*The Routledge Handbook of New Security Studies*', Abingdon: Routledge
- Leander, A. (2013) 'Marketing Security Matters: Undermining De-securitization through Acts of Citizenship', in Guillaume, X. and Huysmans, J., eds., '*Citizenship and Security: The Constitution of Political Being*', London: Routledge

- Lecerle, J.-J. (2008) 'Barthes without Althusser: A different style of Marxism', Paragraph 31 (1): 72-83
- Lenoir, T. (2000) 'All but War Is Simulation: The Military-Entertainment Complex', *Configurations*, 8(3): 289-335
- Lenoir, T. (2003) 'Programming Theaters of War: Gamemakers as Soldiers' in Latham, R., ed., *Bombs and Bandwidth: The Emerging Relationship Between Information Technology and Security*, New York: The New Press
- Lenoir, T. and Lowood, H. (2005) 'Theaters of War: The Military-Entertainment Complex' in Schramm, H., Schwarte, L. Lazardzig, J., eds., *Collection, Laboratory, Theater: Scenes of Knowledge in the 17th Century*, New York: Walter De Gruyter
- Levy, J. S. (2001) 'Explaining Events and Developing Theories: History, Political Science, and the Analysis of International Relations', in Elman, C. and Elman, M. F., eds., *Bridges and Boundaries: Historians, Political Scientists, and the Study of International Relations*, London: The MIT Press
- Levy, J. S. (2008) 'Case Studies: Types, Designs, and Logic of Inference', *Conflict Management and Peace Science*, 25: 1-18
- Lutz, C. and Bartlett, L. (1995) 'Making Soldiers in the Public Schools: An Analysis of the Army JROTC Curriculum', *American Friends Service Committee Report*, Philadelphia
- Lutz, C. (2002) 'Making War at Home in the United States: Militarisation and the Current Crisis', *American Anthropologist*, 104(3): 723-735
- Mahoney, J. (2015) 'Process Tracing and Historical Explanation', *Security Studies*, 24(2): 200-218
- Mandel, R. (2004) *Security, Strategy and the Quest for Bloodless War*, London: Lynne Rienner Publishers
- Mandelbaum, M. (1982) 'Vietnam: The Television War', *Daedalus*, 111(4): 157-169
- McCracken, T. (2013) 'Obama's Drone War', *Survival: Global Politics and Strategy*, 55 (2): 97-122
- Melman, S. (1974) *The Permanent War Economy*, New York: Simon and Schuster

- Melman, S. (1987) *'The Demilitarized Society: Disarmament and Conversion'*, Montreal: Harvest House
- Melman, S. (1997) 'From Private to State Capitalism: How the Permanent War Economy Transformed the Institutions of American Capitalism', *Journal of Economic Issues*, 31 (2): 311-330
- Metcalf, L. (1972-1973) 'The Secrecy of Corporate Ownership', *Indiana Law Review*, 6: 645
- Milliken, J. (1999) 'The Study of Discourse in International Relations: A Critique of Research and Methods', *European Journal of International Relations*, 5(2): 225-254
- Mills, C. W. (1958) 'The Structure of Power in American Society', *The British Journal of Sociology*, 9 (1): 29-41
- Mills, C. W. (2000) *'The Power Elite'*, Oxford: Oxford University Press
- Milner, J.-C. (2003) *'Le pas philosophique de Roland Barthes'*, Paris: Verdier
- Mitchell, W.T.J. (2011) *'Cloning Terror: The War of Images, 9/11 to the Present'*, Chicago: Chicago University Press
- Moore, P. (2014) 'Poll Results: Police', YouGov/Huffington Post Survey, August 16-17, [online] available at: < <https://today.yougov.com/news/2014/08/19/poll-results-police/> > [accessed 4 January 2016]
- Moskos, C. and Butler, J. (1996) *All That We Can Be: Black Leadership and Racial Integration the Army Way*, New York: BasicBooks
- Moskos, C. and Gastris, P. (2001) Now do you Believe we Need a Draft?, *Washington Monthly*, [online] available at: < <http://www.washingtonmonthly.com/features/2001/0111.moskos.glastris.html> >, [accessed 20 December 2015]
- Neuman, W. L. (2014) *'Social Research Methods: Qualitative and Quantitative Approaches'*, Harlow: Pearson Education Limited
- Newman, K. (2001) 'The Sorcerer's Apprentice? Alchemy, Seduction and Confusion in Modern Marketing', *International Journal of Advertising*, 20(4): 409-429
- Odell, J.S. (2001) 'Case Study Methods in International Political Economy', *International Studies Perspectives*, 2(2): 161-176

- O'Hanlon, M. E. (2009) *'The Science of War'*, Oxford: Princeton University Press
- Ortiz, C. (2010) 'The New Public Management of Security: The Contracting and Managerial State and the Private Military Industry', *Public Money and Management*, 30 (1): 35-41
- Orvis, B. R. and Asch, B. J. (2001) 'Military Recruiting: Trends, Outlook, and Implications', RAND
- Paris, R. (2002) 'Kosovo and the Metaphor War', *Political Science Quarterly*, 117(3): 423-450
- Peoples, C. (2010) *'Justifying Ballistic Missile Defence: Technology, Security and Culture'*, Cambridge: Cambridge University Press
- Pierce, R. (2008) *'Research Methods in Politics: A Practical Guide'*, London: SAGE Publications
- Pepall, L. M. and Richards, D. J. (2002) 'The Simple Economics of Brand Stretching', *The Journal of Business*, 75 (3): 535-552
- Pivetti, M. (1989) 'Military Expenditure and Economic Analysis: A Review Article', *Contributions to Political Economy*, 8: 55-67
- Pivetti, M. (1992) 'Military Spending as a Burden on Growth: An 'Underconsumptionist' Critique', *Cambridge Journal of Economics*, 16: 373-384
- Polan, D. (2001) 'Inexact science: Complexity and contradiction in Roland Barthes' "Classic Semiology"', *The Yale Journal of Criticism*, 14 (2): 453-462
- Power, M. (2007) 'Digitized Virtuosity: Video War Games and Post-9/11 Cyber-Deterrence', *Security Dialogue*, 38(2): 271-288
- Record, J. (2002) 'Collapsed Countries, Casualty Dread, and the New American Way of War', *Parameters*, 109-118
- Richardson, J. E. (2007) *'Analysing Newspapers: An Approach from Critical Discourse Analysis'*, Basingstoke: Palgrave Macmillan
- Roger, P. (1996) 'Barthes dans les années Marx', *Communications*, 36: 39-65
- Roger, P. (1997) 'Barthes with Marx' in Rabaté, J.-M., ed., *'Writing the image after Roland Barthes'*, Philadelphia: University of Pennsylvania Press, 174-186

- Rose, G. (2001) *'Visual Methodologies: An Introduction to the Interpretation of Visual Materials'*, London: SAGE Publications
- Rukavishnikov, V. and Pugh, M. (2006) 'Civil-Military Relations', in Caforio, G., ed., *Handbook of the Sociology of the Military*, Chapter 8: 131-149
- Ryner, M. (2006) 'Workers of the World: The 'Economic Corporate Moment' of Contemporary World Politics' in Davies, M. and Ryner, M., eds., *Poverty and Production of World Politics: Unprotected Workers in the Global Political Economy*, Basingstoke: Palgrave Macmillan
- Salamini, L. (1981) 'Gramsci and Marxist Sociology of Language', *International Journal of the Sociology of Language*, 32: 27-44
- Saltman, K. and Gabbard, D. (2003) *'Education as Enforcement: The Militarization and Corporatization of Schools'*, London: Routledge Falmer
- Salzer-Mörling, M. and Strannegård, L. (2004) *'Silence of the Brands'*, *European Journal of Marketing*, 38: (1/2): 224-238
- Sandikci, Ö and Ekici, A. (2009) 'Politically Motivated Brand Rejection', *Journal of Business Research*, 62: 208-217
- Sassoon, A. S. (1990) 'Gramsci's Subversion of the Language of Politics', *Rethinking Marxism: A Journal of Economics, Culture and Society*, 3 (1): 14-25
- Seawright, J. and Gerring, J. (2008) 'Case Selection Techniques in Case Study Research: A Menu of Qualitative and Quantitative Options', *Political Research Quarterly*, 61(2): 294-308
- Shapiro, M. (2011) 'The Presence of War: "Here and Elsewhere"', *International Political Sociology*, 5: 109-125
- Shaw, D. and Shiu, E. (2002) 'An Assessment of Ethical Obligation and Self-Identity in Ethical Consumer Decision-Making: A Structural Equation Modelling Approach', *International Journal of Consumer Studies*, 26: 286-293
- Sherry, M. (1995) *In the Shadow of War – the United States since the 1930s*, USA: Yale University
- Sinclair, T. (2005) *'The New Masters of Capital: American Bond Rating Agencies and the Politics of Creditworthiness'*, London: Cornell University Press



- Singer, P. W. (2001-2002) 'Corporate Warriors: The Rise of the Privatized Military Industry and its Ramifications for International Security', *International Security*, 26 (3): 186-220
- Singer, P. W. (2003) 'Corporate Warriors: The Rise of the Privatized Military Industry', London: Cornell University Press
- Singer, P. W. (2005) 'Outsourcing War', *Foreign Affairs*, 84 (2): 119-132
- Singer, P. W. (2009) *Wired for War: The Robotics Revolution and Conflict in the 21<sup>st</sup> Century*, New York: The Penguin Press
- Smith, H. (2005) 'What Costs Will Democracies Bear? A Review of Popular Theories of Casualty Aversion', *Armed Forces and Society*, 31 (4): 487-512
- Squiers, A. (2014) *'An Introduction to the Social and Political Philosophy of Bertolt Brecht: Revolution and Aesthetics'*, Amsterdam: Rodopi
- Stavrianakis, A. (2006) 'Call to Arms: The University as a Site of Militarised Capitalism and a Site of Struggle', *Millennium*, 35(1): 139-154
- Stavrianakis, A. and Selby, J. (2013) *'Militarism and International Relations: Political Economy, Security, Theory'*, Abingdon: Routledge
- Stowsky, J. (1997) 'The Dual-use Dilemma', *Issues in Science and Technology*,
- Sun Tzu (1910) 'The Art of War', translated by Giles, L., Norwalk: The Puppet Press
- Szmigin, I., Carrigan, M. and McEachern, M. (2009) 'The Conscious Consumer: Taking a Flexible Approach to Ethical Behaviour', *International Journal of Consumer Studies*, 33: 224-231
- Tajfel, H. (1982) 'Social Psychology of Intergroup Relations', *Annual Review of Psychology*, 33: 1-39
- Tallontire, A., Rentsendorj, E. and Blowfield, M. (2001) 'Ethical Consumers and Ethical Trade: A Review of Current Literature', Policy Series 12, Chatham: Natural Resources Institute
- Tannock, S. (2005) 'Is "Opting Out" Really an Answer? Schools, Militarism and the Counter-Recruitment Movement in Post-September 11 United States at War', *Social Justice*, 32 (3): 163-178

- Thomas, D. (2006) 'A General Inductive Approach for Analyzing Qualitative Evaluation Data', *American Journal of Evaluation*, 27(2): 237-246
- van Dijk, T. (2006) 'Discourse and Manipulation', *Discourse & Society*, 17(2): 359-383
- Van Dijk, (2000) 'New(s) Racism: A discourse analytical approach' in Cottle, S., ed. *'Ethnic Minorities and the Media: Changing cultural boundaries'*, Buckingham: Open University Press, Ch. 2: 33-49
- Vennesson, P. (2008) 'Case Studies and Process Tracing: Theories and Practices' in della Porta, D. and Keating, M., eds., *Approaches and Methodologies in the Social Sciences: A Pluralist Perspective*, Cambridge: Cambridge University Press, Ch.12
- von Clausewitz, C. (2006) 'On War', translated by Colonel J.J. Graham, [E-book], Available online through: Project Gutenberg website at <http://www.gutenberg.org/files/1946/1946-h/1946-h.htm> [accessed August 8, 2014]
- Weber, C. (2005) 'Securitising the Unconscious: The Bush Doctrine of Preemption and Minority Report', *Geopolitics*, 10(3): 482-499
- Weber, C. (2006) *'Imagining America at War: Morality, Politics, and Film'*, Routledge: Abingdon
- Weber, C. (2008) 'Popular Visual Language as Global Communication: The Remediation of United Airlines Flight 93', *Review of International Studies*, 34 (S1): 137-153
- The White House (2002) 'The National Security Strategy of the United States of America', [online] document available from: <http://georgewbush-whitehouse.archives.gov/nsc/nss/2002/> [Accessed: January 15<sup>th</sup>, 2014]
- Williamson, J. (1978) *'Decoding Advertisements: Ideology and Meaning in Advertising'*, London: Marion Boyars
- Willmott, H. (2010) 'Creating 'Value' Beyond the Point of Production: Branding, Financialization and Market Capitalization', *Organisation*, 17: 517- 542
- Wodak, R. (2005) 'Populist discourses: The Austrian case' in Rydgren, J., ed., *'Movements of Exclusion: Radical right-wing populism in the Western world'*, New York: Nova Science Publishers, Ch. 7: 121-145

- Wodak, R. and Meyer, M., eds. (2009) *Methods of Critical Discourse Analysis*, London: SAGE Publications
- Wyatt, G. M. (2005-2006) 'The Third Amendment in the Twenty-First Century: Military Recruiting on Private Campuses', *New England Law Review*, 40: 113- 164
- Yin, R. (1981) 'The Case Study Crisis: Some Answers', *Administrative Science Quarterly*, 26 (1): 58-65
- Yin, R. K. (2003) *Case Study Research: Design and Methods*, London: SAGE Publications

## **Web sources**

- Alliant Techsystems (2012) 'Our History', [online] available at: <https://web.archive.org/web/20120121120145/http://www.atk.com/CorporateOverview/corpovertobusinessstructure.asp> [accessed 12 July 2012]
- Bender, B. (2012) 'As Wars End, Robot Firm Battling', *The Boston Globe*, 12 May 2012, available online at: [http://articles.boston.com/2012-05-12/business/31681504\\_1\\_irobot-defense-budget-explosive-devices](http://articles.boston.com/2012-05-12/business/31681504_1_irobot-defense-budget-explosive-devices), [accessed 12 July 2012]
- Bhatnagar, P. (2003) 'Military-inspired Sunglasses, Desert Combat Boots, Battle-Ready Laptops: The New 'Must-have' Items', CNN Money, 14 April, [online], available at: [http://money.cnn.com/2003/04/09/news/companies/war\\_fads/](http://money.cnn.com/2003/04/09/news/companies/war_fads/) [accessed 12 July 2012]
- Brown, R. (2010) 'Tech Firms Talk Education and Charity at MHT's Tech Citizenship Breakfast' [online] available at: <https://web.archive.org/web/20120109030119/http://www.masshightech.com/stories/2010/11/29/daily64-Tech-firms-talk-education-and-charity-at-MHTs-Tech-Citizenship-breakfast.html> [accessed 12 September 2014]
- Businesswire (2009) 'iRobot Launches New Initiative to 'SPARK' STEM Education in the Classroom' [video online], available at: <http://www.businesswire.com/news/home/20091207005261/en/iRobot-Launches-Initiative-%E2%80%98SPARK%E2%80%99-STEM-Education-Classroom#.U0Vupcf-lhA> [accessed 14 May 2014]
- Chrysler Group LLC (2012) 'Jeep History' [online] available at: <http://web.archive.org/web/20141001170354/http://www.jeep.com/en/history/decades/firstOverview.html> [accessed 12 July 2012]
- Corey McPherson Nash (2008) 'Corey McPherson Nash Tapped by iRobot for Comprehensive Branding Program', Press release, 16 April, available at: <http://www.corey.com/press/2009/04/16> [accessed 14 May 2014]

- Drew, C. (2012) 'For iRobot, the Future is Getting Closer', *The New York Times*, 2 March [online], available at: <http://www.nytimes.com/2012/03/03/technology/for-irobot-the-future-is-getting-closer.html?pagewanted=all&r=0> [accessed 12 July 2012]
- Forbes (2014) 'America's Best Small Companies', [online] available at: <http://www.forbes.com/companies/irobot/> [accessed 5 January 2016]
- Harvard University (2014) 'Harvard College – ROTC at Harvard', [online] available at: <https://college.harvard.edu/admissions/choosing-harvard/rotc> [accessed 14 September 2014]
- iRobot (n.a.) 'Household Helpers –iRobot Roomba Floor Vacuuming Robot' [online] available at: [http://www.irobot.com/filelibrary/ppt/corp/cool\\_stuff\\_ppt/img8.html](http://www.irobot.com/filelibrary/ppt/corp/cool_stuff_ppt/img8.html) [accessed 12 July 2014]
- iRobot (2000a) 'IS Robotics Research & Development (ISR R&D)' [online] available at: <https://web.archive.org/web/20001206024100/http://www.irobot.com/rd/index.htm> [accessed May 10, 2014]
- iRobot (2000b) 'Current IS Robotics Programs' [online] available at: <https://web.archive.org/web/20001206071200/http://www.irobot.com/rd/research.htm> [accessed May 10, 2014]
- iRobot (2001a) 'iRobot- Home' [online] available at: <https://web.archive.org/web/20011201031336/http://irobot.com/home/> [accessed May 10, 2014]
- iRobot (2001b) 'Investor Group Led By Fenway Partners', Press Release, 1 October, [online] available at: [https://web.archive.org/web/20020208030935/http://www.irobot.com/corp/xpr\\_011001.asp](https://web.archive.org/web/20020208030935/http://www.irobot.com/corp/xpr_011001.asp) [accessed May 10, 2014]
- iRobot (2002a) 'iRobot – Home' [online] available at: <https://web.archive.org/web/20020611042827/http://www.irobot.com/home/default.asp> [accessed May 10, 2014]

iRobot (2002b) 'Recent Press' [online] available at:

<<https://web.archive.org/web/20020603055102/http://www.irobot.com/corp/p09.asp>> [accessed May 10, 2014]

iRobot (2003a) 'iRobot – Home' [online] available at:

<<https://web.archive.org/web/20031008035748/http://www.irobot.com/home/default.asp>> [accessed May 10, 2014]

iRobot (2003b) 'The Next Step in Unmanned Tactical Mobile Robots' [online] available at:

<<https://web.archive.org/web/20031015035842/http://www.packbot.com/>> [accessed May 10, 2014]

iRobot (2004a) 'iRobot Signs \$32 Million Contract to Develop Small Unmanned Ground Vehicle for U.S. Army's Future Combat Systems Program', Press Release, 12 April, [online] available at:

<<http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-newsArticle&ID=1334666&highlight=>> [accessed 26 July 2012]

iRobot (2004b) 'iRobot Unveils Details of Robot Deployments in Iraq and Afghanistan; Opens New Office in Crystal City', Press release, 2 June, [online] available at:

<<http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-newsArticle&ID=1334664&highlight=>> [accessed 26 July 2012]

iRobot (2004c) 'Dirt Detection, Smart Sensors and Self-Charging Make Manual Vacuuming Obsolete' Press release, 12 July, [online] available at:

<<http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-newsArticle Print&ID=1334663&highlight=>> [accessed 26 July 2012]

iRobot (2004d) 'iRobot Names Former Undersecretary of Defense to Board of Directors', Press release, 03 August, [online] available at:

<<http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-newsArticle Print&ID=1334662&highlight=>> [accessed 26 July 2012]

iRobot (2004e) 'iRobot and John Deere Team to Produce Military Autonomous Unmanned Ground Vehicle', Press release, 25 October, [online] available at:

<<http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-newsArticle print&ID=1334660&highlight=>> [accessed 26 July 2012]

- iRobot (2004f) 'iRobot's PackBot on Display at the National Museum of American History', Press release, 10 November, [online] available at:  
 <<http://www.irobot.com/sp.cfm?pageid=86&id=160&referrer=169>> [accessed 26 July 2012]
- iRobot (2004g) 'Latest Roomba® Robotic Floorvac's Are Set to Sweep Europe in Time for the Holidays', Press release, 15 November, [online] available at:  
 <<http://www.irobot.com/sp.cfm?pageid=86&id=159&referrer=169>> [accessed 26 July 2012]
- iRobot (2005a) 'Annual Report 2005', [online] available at:  
 <<http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-reportsannual>> [accessed 27 July 2012]
- iRobot (2005b) 'iRobot – Home' [online] available at:  
 <<https://web.archive.org/web/20060204012158/http://irobot.com/>> [accessed 10 May 2014]
- iRobot (2005c) 'iRobot Appoints Two Former Senior Ranking Military Personnel; Expands Government & Industrial Robotics Division', Press Release, 24 January, [online] available at:  
 <[http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-newsArticle\\_print&ID=1334653&highlight=>](http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-newsArticle_print&ID=1334653&highlight=>) [accessed 26 July 2012]
- iRobot (2005d) 'iRobot Wins \$18 Million U.S. Navy Contract to Deliver Explosive Ordnance Disposal Robots', Press Release, 16 March, [online] available at:  
 <<http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-newsArticle&ID=1334651&highlight=>> [accessed 26 July 2012]
- iRobot (2005e) 'iRobot Unveils World's First Robotic Floor Washer', Press Release, 23 May, [online] available at:  
 <[http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-newsArticle\\_print&ID=1334644&highlight=>](http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-newsArticle_print&ID=1334644&highlight=>) [accessed 26 July 2012]
- iRobot (2005f) 'iRobot's Future Combat Systems Contract Grows to Over \$51 Million', Press Release, 31 May, [online] available at:  
 <[http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-newsArticle\\_print&ID=1334643&highlight=>](http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-newsArticle_print&ID=1334643&highlight=>) [accessed 26 July 2012]

iRobot (2005g) 'iRobot Secures NAVSEA Contract Increase for Man Transportable Robotic System', Press release, 16 September, [online] available at: <<http://www.irobot.com/sp/cfm?pageid=86&id=141&referrer=169>> [accessed 26 July 2012]

iRobot (2005h) 'iRobot to Host PackBot Payload Developers Conference', Press release, 03 November, [online] available at:

<<http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-newsArticle&ID=1334628&highlight=>> [accessed 27 July 2012]

iRobot (2005i) 'iRobot Secures Additional NAVSEA Funding for Man Transportable Robotic System', Press release, 22 November, [online] available at:

<[http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-newsArticle\\_print&ID=1334624&highlight=](http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-newsArticle_print&ID=1334624&highlight=)> [accessed 27 July 2012]

iRobot (2006a) 'iRobot Reports Fourth Quarter and Fiscal Year 2005 Financial Results', Press release, 14 February, [online] available at: <http://www.irobot.com/sp.cfm?pageid=86&id=206&referrer=85>, [accessed 26 July 2012]

iRobot (2006b) 'U.S. Navy Awards iRobot Additional \$26 Million for Man Transportable Robotic System Robots', Press release, 27 March 2006, available at:

<<http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-newsArticle&ID=1334617&highlight=>> [accessed 27 July 2012]

iRobot (2006c) 'Sen. John Kerry Visits iRobot to Congratulate Company on \$26 Million U.S. Navy Contract', Press release, 28 March, [online] available at: <http://www.irobot.com/sp.cfm?pageid=86&id=223&referrer=85> [accessed 27 July 2012]

iRobot (2006d) 'iRobot Reports First-Quarter 2006 Financial Results', Press release, 2 May, [online] available at: <<https://web.archive.org/web/20061016042456/http://www.irobot.com/sp.cfm?pageid=86&id=231&referrer=85>> [accessed 27 July 2012]

iRobot (2006e) 'iRobot Appoints Gen. Paul J. Kern to Board of Directors', Press release, 10 May, [online] available at:



- <[http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-newsArticle\\_print&ID=1334611&highlight=](http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-newsArticle_print&ID=1334611&highlight=)> [accessed 27 July 2012]
- iRobot (2006f) 'iRobot to Deliver \$6.9 Million in PackBot Robots to U.S. Military', Press release, 03 October 2006, available at: <<http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-newsArticle&ID=1334594&highlight=>> [accessed 27 July 2012]
- iRobot (2006g) 'iRobot Unveils New Technology for Simultaneous Control of Multiple Robots', Press release, 31 October 2006, available at: <<http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-newsArticle&ID=1334589&highlight=>> [accessed 30 July 2012]
- iRobot (2007a) 'iRobot - Home', [online] available at: <https://web.archive.org/web/20070630234712/http://www.irobot.com/> [accessed 10 May 2014]
- iRobot (2007b) 'iRobot Introduces Next-Generation Explosive Ordnance Disposal Robot', Press release, 7 February, [online] available at: <http://www.irobot.com/sp.cfm?pageid=86&id=303> [accessed 30 July 2012]
- iRobot (2007c) 'iRobot to Deliver 22 Additional Bomb-Disposal Robots to German Federal Defense Force', Press release, 07 March, [online] available at: <[http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-newsArticle\\_print&ID=1334578&highlight=](http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-newsArticle_print&ID=1334578&highlight=)> [accessed 30 July 2012]
- iRobot (2007d) 'iRobot Awarded Additional \$14 Million from U.S. Navy for Bomb-Disposal Robots', Press release, 02 April, [online] available at: <<http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-newsArticle&ID=1334577&highlight=>> [accessed 30 July 2012]
- iRobot (2007e) 'iRobot and Boeing Team to Deliver New Military Reconnaissance Robot', Press release, 23 April, [online] available at: <<http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-newsArticle&ID=1334573>> [accessed 30 July 2012]
- iRobot (2007f) 'iRobot Teams with Lockheed Martin to Develop FCS Centralized Controller', Press release, 14 June, [online] available at:

- <<http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-newsArticle&ID=1334073&highlight=>> [accessed 30 July 2012]
- iRobot (2007g) ‘iRobot and TASER Team to Deliver New Robot Capabilities for Military, Law Enforcement’, Press release, 28 June, [online] available at: <<http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-newsArticle&ID=1334071&highlight=>> [accessed 30 July 2012]
- iRobot (2007h) ‘iRobot Files Lawsuit to Stop Infringement of Patents on Combat-Proven PackBot Robot’, Press release, 20 August, [online] available at: <[http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-newsArticle\\_print&ID=1334064&highlight=](http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-newsArticle_print&ID=1334064&highlight=)> [accessed 30 July 2012]
- iRobot (2007i) ‘iRobot Awarded NAVSEA Orders Totaling \$19 Million for Bomb-Disposal Robots’, Press release, 18 September, [online] available at: <[http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-newsArticle\\_print&ID=1334061&highlight=](http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-newsArticle_print&ID=1334061&highlight=)> [accessed 30 July 2012]
- iRobot (2007j) ‘iRobot Wins \$286 Million U.S. Army’, Press release, 18 December, [online] available at: <[http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-newsArticle\\_print&ID=1334049&highlight=](http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-newsArticle_print&ID=1334049&highlight=)> [accessed 30 July 2012]
- iRobot (2007k) ‘iRobot Prevails in Lawsuits Against Robotic FX’, Press release, 21 December, [online] available at: <<http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-newsArticle&ID=1334048&highlight=>> [accessed 30 July 2012]
- iRobot (2007l) ‘iRobot – NDIA 23<sup>rd</sup> Annual National T&E Conference’ [online] available at: <[http://www.dtic.mil/ndia/2007test/Dyer\\_SessionF.pdf](http://www.dtic.mil/ndia/2007test/Dyer_SessionF.pdf)> [accessed 30 July 2012]
- iRobot (2008a) ‘iRobot – Home’, [online] available at: <<https://web.archive.org/web/20081108121246/http://store.irobot.com/corp/index.jsp>> [accessed 10 May 2014]
- iRobot (2008b) ‘iRobot Receives \$5.8 Million Order From The U.S. Army’, Press release, 25 September, [online] available at:

- <[http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-newsArticle\\_print&ID=1333522&highlight=](http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-newsArticle_print&ID=1333522&highlight=)> [accessed 20 July 2012]
- iRobot (2008c) 'iRobot Receives Additional \$3.5 Million Order From U.S. Army', Press release, 06 October, [online] available at: <<http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-newsArticle&ID=1333511&highlight=>> [accessed 30 July 2012]
- iRobot (2008d) 'iRobot Receives \$3.7 Million Order from NAVSEA', Press release, 27 October, [online] available at: <<http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-newsArticle&ID=1333513&highlight=>> [accessed 30 July 2012]
- iRobot (2008e) 'iRobot Delivers 2,000th PackBot Robot', Press release, 29 October, [online] available at: <<http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-newsArticle&ID=1333512&highlight=>> [accessed July 2012]
- iRobot (2008f) 'Congress Allocates \$2 Million for iRobot to Develop its Next - Generation Robotic Platform Warrior 700', Press release, 12 November, [online] available at: <[http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-newsArticle\\_print&ID=1333509&highlight=](http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-newsArticle_print&ID=1333509&highlight=)> [accessed 30 July 2012]
- iRobot (2008g) 'iRobot Awarded Six Small Business Innovative Research (SBIR) R&D Grants', Press release, 17 November, [online] available at: <<http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-newsArticle&ID=1333508>> [accessed 30 July 2012]
- iRobot (2009a) 'iRobot – Home', [online] available at: <<https://web.archive.org/web/20091002093141/http://www.irobot.com/>> [accessed 10 May 2014]
- iRobot (2009b) 'iRobot Announces 2<sup>nd</sup> Generation Looj™ gutter Cleaning Robot, Launches iRobot iTube Channel at CES', Press release, 8 January, [online] available at: <[http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-newsArticle\\_Print&ID=1333507&highlight=](http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-newsArticle_Print&ID=1333507&highlight=)> [accessed 30 July 2012]
- iRobot (2009c) 'iRobot Receives Order From the U.S. Army Totaling \$5.5 Million', Press release, 29 January, [online] available at:

- <<http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-newsArticle&ID=1333505&highlight=>> [accessed 30 July 2012]
- iRobot (2009d) 'iRobot Receives \$7.8 Million Order from the U.S. Army', Press release, 10 February [online], available at: <<http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-newsArticle&ID=1333504&highlight=>> [accessed 30 July 2012]
- iRobot (2009e) 'iRobot Awarded \$13.5 Million NAVSEA Contract', Press release, 10 August, [online] available at: <<http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-newsArticle&ID=1333491&highlight=>> [accessed 30 July 2012]
- (iRobot, 2010a) 'iRobot History', [video online], available at: <[https://www.youtube.com/watch?v=A5H9mkr\\_NYE](https://www.youtube.com/watch?v=A5H9mkr_NYE)> [accessed 12 December 2013]
- iRobot (2010b) 'Colin Angle's Keynote at Engineering Awesome Event, [video online] available at: <http://www.youtube.com/watch?v=-FvZtrWo4KI>, 22 October, [online] [accessed 12 December 2013]
- iRobot (2010c) 'Engineering Awesome, [video online] available at: <http://www.youtube.com/watch?v=f0P6btzT43g>, 3 December, [accessed 12 December 2013]
- iRobot (2010d) 'SPARK - Cool Stuff - Timeline', [online], available at: <[https://web.archive.org/web/20111123042830/http://spark.irobot.com/index.php/cool\\_stuff/timeline/discover/2000\\_2009](https://web.archive.org/web/20111123042830/http://spark.irobot.com/index.php/cool_stuff/timeline/discover/2000_2009)> [accessed 14 May 2014]
- iRobot (2010e) 'SPARK - Cool Stuff- Discover', [online], available at: <[https://web.archive.org/web/20110425085926/http://spark.irobot.com/index.php/cool\\_stuff/quotes/discover](https://web.archive.org/web/20110425085926/http://spark.irobot.com/index.php/cool_stuff/quotes/discover)> [accessed 14 May 2014]
- iRobot (2010f) 'iRobot Negotiator', [online], available at: [https://web.archive.org/web/20120524094950/http://spark.irobot.com/downloads/color/iRobot\\_Negotiator.pdf](https://web.archive.org/web/20120524094950/http://spark.irobot.com/downloads/color/iRobot_Negotiator.pdf) [accessed 14 May 2014]
- iRobot (2010g) 'SPARK -Programs- 20 in 20', [online] available at: <<https://web.archive.org/web/20100914030521/http://spark.irobot.com/programs/20in20>> [accessed 14 May 2014]

- iRobot (2010h) ‘SPARK – Programs – 20 in 20 Blog’, available at:  
 <[https://web.archive.org/web/20101003091326/http://spark.irobot.com/programs/20in20\\_blog](https://web.archive.org/web/20101003091326/http://spark.irobot.com/programs/20in20_blog)> [accessed 14 May 2014]
- iRobot (2010i) ‘iRobot Celebrates Two Decades of Innovation in Robotics’, Press release, 23 March [online] available at:  
 <<http://media.irobot.com/index.php?s=20295&item=122485>> [accessed 12 May 2014]
- iRobot (2010j) ‘iRobot Receives \$20.3 Million Order from NAVSEA’, Press release, 5 August [online] available at:  
 <<http://media.irobot.com/index.php?s=20295&item=122475>> [accessed 12 May 2014]
- iRobot (2011a) ‘SPARK- Discover – Quotes’, available at:  
[http://spark.irobot.com/index.php/cool\\_stuff/quotes/discover](http://spark.irobot.com/index.php/cool_stuff/quotes/discover), accessed on 27 July 2012
- iRobot (2011b) ‘Building Block – My Real Baby’, [online] available at:  
 <[https://web.archive.org/web/20110423132434/http://www.irobot.com/filelibrary/ppt/corp/cool\\_stuff\\_ppt/img5.html](https://web.archive.org/web/20110423132434/http://www.irobot.com/filelibrary/ppt/corp/cool_stuff_ppt/img5.html)> [accessed 2 March 2014]
- iRobot (2012a) ‘Annual Report 2012, [online] available at:  
 <<http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-reportsannual>>  
 [accessed 14 May 2014]
- iRobot (2012b) ‘iRobot – Home’ [online] available at:  
 <<https://web.archive.org/web/20120316032826/http://www.irobot.com/>>  
 [accessed 14 May 2014]
- iRobot (2013a) ‘iRobot – home’ [online] available at:  
 <<https://web.archive.org/web/20120420094946/http://www.irobot.com/us/>>  
 [accessed 14 May 2014]
- iRobot (2013b) ‘iRobot – Our History’ [online] available at:  
[http://www.irobot.com/us/Company/About/Our\\_History.aspx](http://www.irobot.com/us/Company/About/Our_History.aspx) [accessed 14 May 2014]
- iRobot (2013c) ‘iRobot Cool Stuff Museum Tour’, [video online] available at:  
<https://www.youtube.com/watch?v=m0TVqtE7lyo> [accessed 14 May 2014]

- iRobot (2013d) 'iRobot STEM Education – Photos' [online] available at: [https://www.facebook.com/iRobotSTEM/photos\\_stream](https://www.facebook.com/iRobotSTEM/photos_stream) [accessed 12 June 2014]
- iRobot (2013e) 'iRobot STEM's Photos ', [online] available at: < [goo.gl/D3oXMK](http://goo.gl/D3oXMK) > [accessed 12 June 2014]
- iRobot (2013f) 'iRobot STEM's Photos', [online] available at: <[goo.gl/jzP42k](http://goo.gl/jzP42k)> [accessed 12 June 2014]
- iRobot (2013g) iRobot STEM's Photos', [online] available at: <[goo.gl/uzB2MB](http://goo.gl/uzB2MB)> [accessed 12 June 2014]
- iRobot (2013h) 'Dismounted Mobile Ops', [online] available at: <http://www.irobot.com/us/learn/defense/sugv.aspx>, [accessed 12 July 2013]
- iRobot (2013i) 'Robots for Defense and Security', [online] available at <http://www.irobot.com/us/learn/defense.aspx>, [accessed 10 July 2013]
- iRobot (2013j) 'iRobot wins \$7.2 million tender from Brazil to provide Defense and Security robots', Press release, 5 May, available at: [http://www.irobot.com/us/Company/Press\\_Center/Press\\_Releases/Press\\_Release.aspx?n=051513](http://www.irobot.com/us/Company/Press_Center/Press_Releases/Press_Release.aspx?n=051513), [accessed 10 July 2013]
- iRobot (2013k) 'iRobot awarded \$30 million Army contract', Press release, 11 July, available at: [http://www.irobot.com/us/Company/Press\\_Center/Press\\_Releases/Press\\_Release.aspx?n=071113](http://www.irobot.com/us/Company/Press_Center/Press_Releases/Press_Release.aspx?n=071113), [accessed 18 July 2013]
- iRobot (2014a) 'iRobot – Home', [online] available at <[www.irobot.com/us/](http://www.irobot.com/us/)> [accessed 12 July 2014]
- iRobot (2014b) 'iRobot iTube – Home' [online] available at <https://www.youtube.com/user/irobotitube> [accessed 12 July 2014]
- iRobot (2014c) 'iRobot Reports Second-Quarter Financial Results', Press release, 22 July 2014, [online], available at <http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-newsArticle&id=1949930>

- iRobot (2014d) 'iRobot Wins Contracts Valued at \$9.6 Million from Canadian Department of National Defence', Press release, 8 September 2014, available at: <http://investor.irobot.com/phoenix.zhtml?c=193096&p=irol-newsArticle&ID=1964724&highlight=>
- iRobot (2014e) 'iRobot Careers', [online] available at: <http://www.irobot.com/us/Company/Careers.aspx> [accessed 14 August 2014]
- Kanellos, M. (2007) 'Taser links up with iRobot for stunning new products', [online], CNET, June 28, available at [http://news.cnet.com/8301-10784\\_3-9736833-7.html](http://news.cnet.com/8301-10784_3-9736833-7.html), accessed on 12 July 2012
- Linendoll, K. and Kaercher, J. (2011) 'U.S. Robots Aid Japanese Relief', CNN [online], 11 March, available at: [http://articles.cnn.com/2011-03-23/tech/robots.japan.relief\\_1\\_packbot-irobot-ground-zero?s=PM:TECH](http://articles.cnn.com/2011-03-23/tech/robots.japan.relief_1_packbot-irobot-ground-zero?s=PM:TECH) [accessed 12 July 2012]
- Metal Storm Ltd (2008) 'Metal Storm', website, available at: <http://www.metalstorm.com/> [accessed 12 July 2012]
- Robertson, N. (2002) 'Meet PackBot: The Newest Recruit', CNN, [online], 1 August, available at: [http://articles.cnn.com/2002-08-01/tech/packbot\\_1\\_packbot-robotics-team-cave?s=PM:TECH](http://articles.cnn.com/2002-08-01/tech/packbot_1_packbot-robotics-team-cave?s=PM:TECH) [accessed 12 July 2012]
- Siemens AG (2014) 'Siemens – Products and Solutions' [online] available at: <http://www.siemens.com/entry/cc/en/#/startscreen> [accessed 10 September 2014]
- Siemens Government Technologies (2014) 'Trusted Answers for America' [online] available at: <http://www.siemensgovt.com/> [accessed 10 September 2014]
- Stockholm International Peace Research Institute (2013) 'SIPRI Arms Transfer Database', [online] available at: <http://www.sipri.org/research/armaments/transfers/databases/armstransfers>, [accessed 6 September 2013]
- Time Magazine (1970) 'Business: The Corporation Becomes a Target', 11 May [online] available at: <http://content.time.com/time/magazine/article/0,9171,878248-1,00.html> [accessed 12 July 2012]
- Thomson Reuters (2012) 'Video: Lifestyle', [online], video available at: <http://goo.gl/4MMQ6> [accessed 20 September 2014]

- United Nations (1945) 'Charter of the United Nations' [online] available at: <http://www.un.org/en/documents/charter/index.shtml> [accessed 10 September 2014]
- US Department of Defense (1994) 'Technology Reinvestment Project Announces FY94 Selections', News release, 25 October [online] available at: <http://www.defense.gov/Releases/Release.aspx?ReleaseID=263> [accessed 12 July 2012]
- US Department of Education (2001) 'No Child Left Behind Act' available at: <http://www2.ed.gov/policy/elsec/leg/esea02/index.html> [accessed 12 September 2014]
- US National Archives (2011) 'Eisenhower's "Military-Industrial Complex" Speech Origins and Significance' [1961] [video online] available at: <https://www.youtube.com/watch?v=Gg-jvHynP9Y> [accessed 12 March 2013]
- Wayne, L. (2005) 'An Office and a Gentleman', *The New York Times*, June 19, available at: [http://www.nytimes.com/2005/06/19/business/yourmoney/19pent.html?page\\_wanted=all&r=0](http://www.nytimes.com/2005/06/19/business/yourmoney/19pent.html?page_wanted=all&r=0) [accessed 20 September 2014]